CANADA
DEPARTMENT OF MINES AND RESOURCES
HON. T. A. CRERAR, MINISTER; CHARLES CAMSELL, DEPUTY MINISTER

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BULLETIN No. 86

ANTHROPOLOGICAL SERIES No. 21

THE INDIAN BACKGROUND OF CANADIAN HISTORY

BY

Diamond Jenness

OTTAWA
J. O. PATENAUDE, I.S.O.
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
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Part I

BACKWARDNESS OF THE AMERICAN ABORIGINES AND ITS CAUSES

Between the eleventh century, when the hardy Vikings, after colonizing Greenland, vainly tried to gain a foothold in America, and the end of the fifteenth, when Columbus discovered the West Indies, Europeans made two momentous inventions that definitely assured them the mastery over any peoples they would encounter in the New World. They invented a firearm more deadly than any bow; and they devised a sea-going vessel propelled, not by oars and a rigid square-sail, but by sails alone so mounted as to carry it forward against any breeze except one dead ahead—a vessel, too, that was no longer open in the waist but completely decked, thus furnishing both protected cargo space and shelter for the crew.[1] Commanding these two inventions they held the New World at their mercy. The new weapon quadrupled their strength against any foe; and the ocean lost its terrors when they were no longer compelled to hug the coast, but could voyage wherever they would, carrying food and water for many days. Consequently, during the closing years of the fifteenth century and the first half of the sixteenth, vessels from Portugal, Spain, France, and England all scurried across the Atlantic to share in the spoils from the new-found hemisphere. With compass and astrolabe Columbus and others charted its tropical regions; the two Cabots, seeking a new route to the Indies and Cathay, explored its northern coast-line from Hudson strait to Florida; and Gaspar Corte-Real, following the same northern route, added numerous capes and bays to the growing map and even carried away from Newfoundland half a hundred Beothuk Indians to impress his wondering countrymen.[2] The fleets of nameless fishermen who succeeded Corte-Real were not concerned with the exploration of Canada's coast-line, but only with the harvests of cod that crowded the waters around the Grand Banks. Two Portuguese navigators, indeed, and one Italian, filled in some blank spaces on the charts, but it remained for Jacques Cartier in 1534 and 1535 to explore the St. Lawrence gulf and to enter the St. Lawrence river. Nearly three-quarters of a century after Cartier's visit Champlain anchored his little barque opposite the present site of Quebec, and the era of French colonization began.

To the student of today, looking back through the vista of three centuries, it would seem that the early colonists displayed amazing courage

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[1] *See* Reeve, S.A.: Ship Evolution and Social Evolution; Geog. Rev., Jan. 1933.

[2] Biggar, following Hind, believes they were Naskapi Indians, captured perhaps in Hamilton inlet (Canadian Archives Publications, No. 5, p. XVI); but the legend on the Cantino map indicates that they were taken in Newfoundland (Journal of Columbus; Cabot and Corte-Real, Hakluyt Society, No. LXXXVI, p. 240), and the description of their dwellings and dress accords better with what we know of the Beothuk.

when they turned their backs on the smiling fields of France and crossed the ocean to build new homes in the unknown wilderness. Some, of course, were jail-birds and had no choice. Many were ignorant peasants or fisher-folk who preferred freedom with hardships in the wilderness to serfdom and hardships at home. But those who had been gently nurtured—and they numbered not a few—must often have shared the feelings of Ovid when he lived in exile on the banks of the frozen Danube. The new land contained no roads or bridges, no cities or hamlets with churches, inns, and schools, no stores filled with merchandise or markets crowded with produce, no farmhouses, no flocks of sheep or herds of kine, none of those things that made life easy or pleasant in the country they had left behind. It was a land of pathless forests tenanted by wild beasts, of mighty rivers broken by cataracts and rapids, and of half-naked savages who enjoyed no permanent homes, but wandered from place to place in a never-ending search for food to keep body and soul together. During six months of the year it seethed with pestiferous insects, during the other six months it was buried beneath ice and snow. Of mineral wealth there were few traces visible, and the old dreams of an easy route to the treasures of the Orient had long since faded away. To be sure, firearms gave the new settlers a measure of security, ships brought them supplies from across the sea; but what advantages, what comforts even, could Canada offer them that they could not gain more readily in their native land?

WHY WERE THE INDIANS BACKWARD?

This brings us face to face with our central problem: why was Canada, and the whole hemisphere, so backward? Why did its inhabitants never evolve, in any region, a civilization more advanced than that of England or France in the days of Julius Caesar? The United States, considered today to possess greater resources than any other country in the world, harboured at the time of its discovery two hundred or more petty tribes, half of them pure savages, and the rest no farther ahead than the negroes of West Africa. In Canada only one group of natives, those living in southeastern Ontario, made any serious attempt to cultivate the soil; and their only cereal was maize, their only domesticated animal the dog. In the whole continent there was not a single potato, though the tuber was indigenous to South America and did not reach the Old World until the sixteenth century. And yet America had been inhabited for ten, and perhaps even twenty, thousand years, certainly since very soon after the great ice-sheets retreated from the northern half of the continent and opened up a pathway from Alaska and Bering strait.

"PURE" RACES

There is a theory, lately revived in Europe with a fanfare of trumpets, that in the course of its history the human stock can evolve a superior

race destined, so long as it maintains its purity, to march in the van of progress[1] and to lead the world. Many an Englishman, consciously or unconsciously, has carried such a faith about his own country into the four corners of the globe; in India and in Africa he has professed to bear the white man's burden, and assumed that the white man's special home was the British Isles. Spain knew this doctrine three centuries ago, and Rome before the Spanish nation emerged. While Rome was but a village the Greeks were vaunting their Hellenistic blood and spurning the *barbaroi* around them. Earlier still, in the little country of Palestine, " God's chosen people " worshipped at the same alluring shrine of false " race " nationalism, and before the Israelite nation was born Egypt cast a pitying eye upon the uncultured peoples beyond her realm. Today the doctrine echoes not only in Germany (although she has been the most vocal), but across the Old World in Japan, which faces a China that herself played with the theory for three thousand years and has never quite discarded it. Even the so-called savages have entertained similar ideas. Our Eskimo spoke of themselves as the " real men," superior to their Indian neighbours, whom they hardly recognized as human beings; and the Indians entertained the same feelings toward the Eskimo.

Every student of man and his history, however, knows that " pure " races have only a fanciful existence. All Englishmen are not alike, nor all Chinese; each is a hybrid people compounded of many strains, as is every other people in Europe and in Asia. Here in America we talk of Indians as though they were a single race, and yet they too were clearly hybrid; indeed, the New England tribes and those in eastern Canada were perhaps more nearly akin to Europeans than to the Indians of the British Columbia coast. Even among the Eskimo anatomists have separated at least two distinct strains. We forget too easily that the peoples of the world have jostled one another and mingled their blood ever since the ice-sheets covered half the northern hemisphere and man huddled in caves for shelter, or wandered farther south in warmer climes. Although it is undoubtedly true that certain nations have contributed more than others to the march of civilization, history with equal certainty fails to reveal any " pure " race that might have entered the lists.

INTELLIGENCE OF RACES AND PEOPLES

We may dismiss " pure " races, therefore, as mere figments of the imagination. Yet we cannot deny that there are striking differences between the various inhabitants of our globe, differences great enough to justify their separation into races, even though these races merge into one another and each bears strains from others in its blood. Scientists are still disputing about their number, but we can be sure of at least three, a yellow, a black, and a white, distinguished not only by colour, but by texture of hair, by

[1] " Progress " I would define as an " increasing control over both physical and social environment."

features, and by build. And since the physical differences are so clear, may we not postulate psychical differences also? May not each race inherit a special mentality and one exceed the others in intellectual power? If this is so, then almost inevitably the superior race would lead the world in progress. And if the white race is superior to the rest, or superior at least to the American aborigines, then we can understand why Columbus and his successors did not find in this hemisphere a single civilization that surpassed or even rivalled their own.

Now we have really no means of assessing the intellectuality of the various races and peoples on our globe except by deductive reasoning, by an appeal to their histories; and the histories of even European nations are veiled in obscurity. Just as an individual's lowly status need not indicate low mental calibre, but more often merely lack of opportunity, so the backwardness of a tribe or race is no assurance that intellectually it falls beneath the level of other tribes or races. Both Britain and Germany were backward in Caesar's day, and China eclipsed all Europe in the thirteenth century; obviously, we cannot say that the Chinese fall short of Europeans in intelligence merely because today their relative positions happen to be reversed. Psychological tests of peoples have not yielded satisfactory results, for none that we have yet devised escapes a subjective element, or avoids the twin hurdles of environment and training. Our only recourse is an appeal to history; we must boldly enter that morass of prejudiced and faulty interpretations, pray that our footsteps find the true path, and form our impressions of the characters and mental status of peoples by weighing their past and present histories against what we know of their opportunities for development.

Let us begin with the darker peoples in the tropics. These we incline to place rather low in the scale, because never since the dawn of recorded history have they kept pace with the white and yellow races. It is true that West and South Africa have been largely screened from foreign contacts until fairly recent times, but the West Africans who were transferred to America 300 or 400 years ago have not progressed as we might have expected, even though they have demonstrated strong powers of survival; ex-slaves from China, we feel, would have progressed much more rapidly. The east and northeast sector of Africa, unlike the west and south, has been open to outside influences for several millenia. It clashed with Egypt during pre-Christian times when Egypt still marched in the van of progress; later, it sustained continuous shocks from the vigorous Arabic world. Outside its coastal belt it enjoys a healthy climate, and it seems to possess large resources both in soil and minerals. Yet its inhabitants, right down to the twentieth century, remained among the most backward peoples on our globe. They absorbed every shock, they mingled their blood with every invader (whose numbers, indeed, were small), and they held their ground, modifying and slightly enlarging their cultures to meet special emergencies,

but generally content, like the cattle of their meadows, to graze incuriously in life's pastures without ambition or thought of advance. Their minds were so lethargic that the impacts of higher cultures produced no strongly marked effect; they neither stirred them to greater achievements nor pushed them down the road to decline.

On much the same level as the Africans, perhaps, we may place the darker tribes of southeastern Asia and of Melanesia; and a little lower still the aborigines of Australia. Yet so obscure are the earlier histories of these peoples, and so brief, in many cases, has been their contact with higher cultures, that our verdict must be largely empirical, based on the judgments of highly trained, sympathetic Europeans who have spoken their languages and shared their lives. The yellow peoples of Asia stand on a very different footing, for their achievements during the last 4,000 years shout from the hill-tops; we cannot doubt that they at least are intellectually the peers of any other people on our globe. Nor can we escape an equally favourable opinion of our Indians, when we consider how admirably the Iroquois in Ontario, the Sioux on the plains, the Haida in Queen Charlotte islands, and even the Eskimo along the Arctic coast, are adapting themselves to the white man's way of life, although not one of these tribes ever reached as high a level of culture as scores of others living between the United States and Peru. We know what some of these southern tribes achieved—how they developed agriculture and metallurgy, replaced their temporary camps with cities of stone and brick, fostered art and science and literature, and invented systems of writing to preserve their self-gained knowledge. Their civilization, indeed, followed so nearly the early course of civilization in the Old World that we are bound to credit these Indians in Middle and South America with an intelligence equal to that of our own forefathers; and we have no reason to believe that they were more highly gifted than the natives farther north or farther south. It is not impossible, of course, that a few small tribes were definitely inferior to the rest, just as in Europe there may be odd villages whose inhabitants, through partial isolation and inbreeding, fail to measure up to the standard of the surrounding population; but viewing our Indians in the mass, we can hardly deny that they were just as intelligent as ourselves, or as the peoples in farther Asia.

TEMPERAMENTS OF PEOPLES

Just as two individuals of apparently equal intelligence, however, even when thrown into the same environment, may attain widely different measures of success owing to differences in their temperaments, so it is probable that the variation in the temperaments of peoples profoundly affected their relative progress, spurring some on to greater achievements and keeping others in the rear. We know that Englishmen, Spaniards, and Chinese do not react quite alike in what seem to be similar circumstances;

and we can dimly discern that their different reactions spring from psychological differences, or from what we commonly call their "national characters." We appraise the English as an enterprising and individualistic people, calm-tempered and given to compromise, but gifted with considerable organizing ability; the Chinese, on the other hand, seem rather slow-moving, patient, tenacious, and intensely social. Doubtless our judgments in these matters are very crude, because we cannot analyse the basic mental characters that are inherited from generation to generation; yet we are sure that such differences in temperament actually exist, and that they play an important part in the affairs of nations today. Is it not possible, then, that our Indians lacked the enterprising character of some of the Old World peoples, or were deficient in other traits that helped to carry Europeans farther along the path of progress? May not this have been the reason why the Indians were more backward?

It seems hardly probable. Temperaments appear to be readily modified by environments, and environments may change from century to century. The passion for art and philosophy that characterized old Athens soon faded away, and the austerity and self-discipline of early Rome quickly yielded to idle self-indulgence and a desire for *panis et circenses*. The adventurous Polynesians who once scoured the Pacific ocean in dugout canoes from Hawaii to New Zealand, and from Fiji to Easter island, now in most places exhibit a profound lassitude, and dream away their lives after the manner of the lotus-eaters. Certain traits, of course, persist through the centuries, because they are more immediately conditioned by the genetical strain; but others, including such traits as courage and enterprise that seem particularly conducive to progress, may appear and disappear within a comparatively short term of years. Now there is no evidence that the variety of temperaments in this hemisphere fell below the number in the Old World, or that any of the traits characteristic of Old World peoples were noticeably lacking in the New. We know, indeed, that at least two nations, the Iroquois in North America and the Incas of Peru, glowed with the spirit of empire-builders, and that many tribes displayed great enterprise and courage. Consequently, there seems to have been no temperamental deficiency that could have held back the whole hemisphere, and it is not in this direction that we should seek the reason for the Indians' slow advance.

INFLUENCE OF "RACE-MIXTURE"

Many historians advocate another theory to explain the uneven progress of the various peoples on our globe. They assume that new blood can revitalize a population, especially an old population that has bowed its head and slackened its pace; and they constantly describe how some hardy tribe from the mountains, from the desert, or from across the sea, swooped down upon an inoffensive people and, by intermingling, instilled fresh life

and vigour. They ascribe the blossoming of Helladic Greece to the mingling of energetic northern invaders with the cultured if slightly decadent Mycenaeans; and the flowering of civilization in northern India to the grafting of vigorous "Aryans" from beyond the Himalayas on the various aboriginal stocks. Some even attribute the regeneration of modern Italy to new blood coming from beyond the Alps, and hold that England has maintained her virility for centuries largely because she has kept an open door and welcomed aliens from every country to her bosom. According to this reasoning peoples, like individuals, possess special qualities that may acquire greater vigour in combination, so that a hybrid stock is often more virile and progresses more rapidly than either of its parents. Sometimes the introduction of new ideas and new material resources contributes to this progress, but its primary cause is an increase of energy, both mental and physical, brought about by an intermingling of blood.

Such a theory, of course, runs directly counter to the other theory already dismissed, that certain peoples are naturally gifted to lead the human race so long as they maintain their purity of blood. Each has been adopted at times as a national policy, and nations have even experimented with both simultaneously, encouraging mixture with some of their neighbours and obstructing it with others. One theory is indeed practicable, but to apply the other over any long period of time lies beyond man's power, for no amount of legislation or propaganda can prevent the gradual merging of peoples who are in close contact. We observe this very clearly in the Jews, who have acquired the physical traits of their neighbours in every country that has harboured them for a few centuries; and if we turn our eyes to the United States, how many negroes can we find "untainted" with white blood? Nations have seldom been willing to lower all barriers of race and colour indiscriminately, though tropical America has done so, particularly Brazil; more often, like the United States and Canada, they have opened the gate to peoples of the same colour as themselves, and tried to shut it against all others. The Brazilian experiment is far from encouraging, and neither the United States nor Canada feels confident that its "melting-pot" has yielded a nobler metal than it would have obtained from the original one or two ores unmixed with other ingredients. To increase man's capacity for advance, indeed, hybridization must either improve his physical frame or stimulate and augment his mental faculties. A physical improvement might not be impossible if the experiment could be carefully controlled, although peoples have never interbred with any consideration for the laws of heredity, and we know in fact of no hybrid stock that surpasses physically both its parents. Only a sheer miracle, on the other hand, will stimulate and increase man's mental and moral powers through cross-breeding, until we can accurately diagnose the faculties that human beings now possess, know exactly which are heritable and which are not, and can evaluate also the effects of environment and training. At the present

time we have scarcely touched the fringe of these subjects. It is not remarkable, therefore, that the British Government looked askance at the proposal of a certain official, not so many years ago, to import a number of Malays from Java into British Papua, in order to " improve " the aboriginal stocks and breed a more intelligent and energetic population.

The advocates of race mixture, indeed, like a few eugenicists, seem to have been misled by the stock-breeders and the exponents of plant and animal genetics. When we are searching for a rust-resistant variety of wheat that will ripen early, give an abundant yield, and possess good baking quality, we pay little or no attention to the other effects of our crossings; and when we are breeding for a racing dog, it is a matter of indifference to us whether the strain we obtain has more intelligence than its parents, or whether its span of life is decreased or lengthened. We breed, that is to say, not for an all-round development of the plant or animal, but for one or two special qualities only; and we are quite willing to sacrifice other qualities that may have equal or greater value in different circumstances. Moreover, we carefully select the subjects of our experiments, and breed only from specially chosen types. With man we cannot select our subjects and eliminate unsatisfactory crosses, nor can we afford to sacrifice many excellent qualities in order to improve one or two special ones. Assuming for the moment that it lay in our power, would any one wish to develop a race of musicians who were all neurasthenics, or a nation possessing marvellous engineering ability, but totally lacking in those social qualities that enable men to live together in harmony? What we really need is the improvement of every desirable quality, so that man can live a happier and more fruitful life; but we cannot breed for these qualities when we can neither agree on what they are, being ignorant of the end in view (that is to say, the purpose of life), nor, if we could agree, have the slightest notion whether they can coexist in a single individual—whether, for example, a man can be at one and the same time joyous and self-controlled, artistic and reflective, enterprising and altruistic. We believe that man inherits a certain quality, e.g., artistic ability, only because we see it reappear rather frequently in the same family strains; but how many genes or factors govern its inheritance, the proper formulæ for combining these factors, and the environments necessary first to produce the combination and afterwards to promote its functioning, remain a profound mystery. Miracles do happen in nature, as witness the mutations that are constantly taking place in the biological world; but clearly it would be asking for a miracle of the first order to seek an improvement of man's moral and mental capacities by fusing even selected human groups as long as we know of no rules to guide that selection, and a still greater miracle to expect improvement from the promiscuous fusion that occurs today when two or more peoples merge. Although no one can say that such a miracle has never happened since the world began,

we may reasonably question whether the historians can point to a single people that has undoubtedly benefited by physical hybridization, and not rather by accompanying causes such as access to new ideas and the introduction of new resources.

WAVE-LIKE PROGRESS OF CIVILIZATION

None of the theories we have yet discussed—differences in national intelligence or character, vigorous pure races or vigorous hybrid races—explains the peculiar wave-like progress of civilization—why no one people or race, whether it mixed or kept itself supposedly pure, has ever led the advance in every period of human history, but nation after nation has risen to the crest for a few years or centuries and fallen back into the trough again. Like individuals, they seem often to have grown to maturity, only to decline. As long ago as the century before Christ the poet Lucretius saw an immutable law in this phenomenon:

> Augescunt aliae gentes, aliae minuuntur,
> Inque brevi spatio mutantur saecla animantum,
> Et quasi cursores vitai lampada tradunt.[1]

The old Roman philosopher had observed how Egypt, Persia, Greece, Macedon, and Carthage, one after another had held the torch aloft, run its brief race, and retired to obscurity again; and he saw his own country speeding along the same course. A few centuries later Rome itself stepped aside and handed on the torch to the Arabic world, while a kindred flame blazed up in China. On this continent lights were kindled in Central America and in Peru. With the Renaissance the torch passed to Italy and to Spain, then in the sixteenth century to northern Europe. Today there are torches everywhere, and no man can say which nation is leading in this race toward a hypothetical goal invisible in the distance. Yet the contest has continued long enough for us to realize that although some nations may drop out forever and fade from the scene, others who for centuries have been lagging far behind may obtain a new grant of energy and press again into the front ranks. Such a revival we have witnessed recently in Italy and in Japan; and who can say that China will not shortly speed up her lagging footsteps and re-awaken the clamour "*ex oriente lux.*"

Like individuals, then, the political units that we call nations mature and decline, but, unlike individuals, they can die and rise again. They wax and wane, because human thought and human society are never static from one century to another, but their changes cause political boundaries to change, through external wars or internal stresses brought about by variations in economic conditions or in political, social, and religious ideas. Nations and peoples, however, are by no means synonymous terms, for peoples can survive the loss of political independence, and may even play,

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1 "New nations wax strong, while the old are waning away; the generations of living things are changed within a brief space, and, like the runners in a race, pass on the torch of life."

as did the Jews, a larger rôle on the world's stage than they ever played in the days of their nationhood. Yet peoples too (and those larger units that Toynbee calls "Societies") have often waxed and waned, though not in any clear cycle; and so complex is human society, so numerous and obscure the forces that play on it, that we cannot clearly discern what stirs up their life-blood and starts them on their forward march, nor what at a subsequent period retards their pace and perhaps removes them altogether from the scene. Doubtless many causes operate at the same time, some more potent than others at certain periods, and in certain places. As a rule, it is easier to distinguish some of the factors that cause decline—disastrous competition or wars with stronger neighbours, disruption of trade and financial distress, diminishing resources and increasing poverty in the face of a rising population, a social organization oppressive to the masses, an inefficient form of government, a degrading religion, in remote centuries perhaps unfavourable changes of climate or the introduction of new diseases. The reasons why peoples decline, however, hardly concern our problem, because there is no evidence that the American aborigines ever fell away from much higher levels of culture than those discovered and destroyed by the first white explorers. What does concern us very directly are the causes for advance, and why those causes did not produce results in the New World comparable with those they produced in the Old.

INFLUENCE OF CLIMATE ON CIVILIZATION

Huntingdon and others stress the effect of climate in promoting or retarding the progress of the human race. They assert that the steaming tropics with their unvarying heat enervate man; that the cold and stormy Arctic demands a disproportionate amount of energy for the bare preservation of life; but that the temperate zone between these two extremes arouses and sustains the maximum energy, provided that the weather varies moderately from day to day and from season to season, and the heat and cold are neither excessive nor prolonged. Civilization, they say, had its birth in the eastern Mediterranean at a time when the region enjoyed a climate like that of Florida or southern France; but during the centuries that followed, when the rainfall belt moved northward and the climate slowly changed, civilization, too, moved northward, passing its standards first to Greece and Italy, then at a later date to northern Europe, where they still wave proudly, though one has followed the isotherms westward to North America and another eastward to Japan. Today, Egypt and Mesopotamia, Greece and Persia, Turkestan and Mongolia, languish, because their once moist climates, warm but variable, have yielded to unfavourable arid climates with little variation in the weather from one day to another, despite the great differences a thermometer may register between summer heat and winter cold. Similarly, in the western hemisphere, the Mayas of Central America, the leaders of a New World civiliza-

tion, fell from their high estate even before the Spaniards touched their shores, because their climate had changed from dry to wet, and a humid, tropical atmosphere dissipated their energy and turned the marrow in their bones to water. It follows, logically, that the inhabitants of these countries will never again work their way into the front rank, or do more than follow the banners raised by other countries, until some reverse swing of the climatic pendulum restores their physical and mental vigour, and spurs them forward once more along the path of advance.

At first glance this theory seems quite attractive. The humid tropic zone is certainly enervating, though more to the white race, perhaps, than to any other. Life flows along rather leisurely between one siesta and the next, and labour is less efficient because both the mind and body are sluggish. Industry has long recognized this, and in consequence lowers its wage scales, or erects its factories in temperate lands and draws on the tropics for its raw materials only. We can hardly expect from tropical peoples that constant urge toward experimentation in every walk of life, with its accompanying flood of new discoveries, new inventions, and new social alinements, that characterizes modern life in Europe and North America, in Australasia and South Africa. It would appear only natural, then, that the inhabitants of the temperate zones should lead in every advance, and the peoples of the tropics follow humbly in their wake.

Do the facts as we know them, however, substantiate the theory? Actually, most geographers deny that during the last 3,000 or 4,000 years there has been any permanent change of climate in the Mediterranean region, in northern Europe, or in Central Asia, any change that has seriously modified the conditions of life; and they deny still more emphatically any change of climate in Central America since the first millenium A.D., when the Mayan civilization flourished in what are now humid lowlands. If their contention is valid, then influences of an entirely different character must have brought about the decline of the early civilizations in the eastern Mediterranean and in Middle America; and the "northward course of empire" dictated by climatic factors resolves itself into a pure myth.

Tropical man, again, was by no means inefficient under the conditions that existed a few centuries ago; he seems inefficient today only because progress has suddenly become for a period more rapid, and the demands of modern industry more exacting. We are too apt to forget that the history of humanity stretches back over several hundred thousand years, and that it is only within the last 150 that an extraordinary spurt in advance has forced people to work with one eye on a clock and the other on a micrometer screw. During by far the greater part of human history the current of progress has flowed with extreme slowness, so that, other things being equal, man in the tropics could easily keep pace with man in the temperate zones. He did, in fact, keep pace, during the first millenium A.D., in India, Indo-China, and Java, countries which at that

period, though as hot and humid as they are today, could boast of civilizations that compared favourably with any civilizations in contemporary Europe. Indeed, if the rapid surge that has recently carried Europe and North America so far ahead should slacken its speed,[1] it is quite conceivable that these southeastern Asiatics may bridge the newly risen gap as Japan has done, and once more march parallel with the white race, not on exactly the same track, perhaps, but on a track of their own choosing. For if empires could flourish in their climate before and during the Christian era, if art and architecture, literature and philosophy, could blossom as abundantly as in Europe, there seems no reason why the same climate should debar a further evolution, or a steady advance along other lines. Future generations may yet see arise, in tropical Asia, new architectural marvels to compete with the Taj Mahal and Borobudur, a new world religion replace dying Buddhism, and a new and deeper philosophy of life spring from the ashes of effete Hinduism.

Many other facts the climatic theory fails to explain. If climate has exerted so direct and powerful an influence on civilization as its advocates claim, why should we have found, on both the Atlantic and Pacific coasts of the United States, where the climate is healthy and bracing, Indians more backward than the tribes in the Mississippi basin behind them, and immeasurably below the Pueblo Indians, the Aztecs, Toltecs, Mayas, and other tribes in the hotter south? Are the Chinese south of the Yangtse river, who live in a warm, in many places sub-tropical, climate, less advanced than the northern Chinese or the inhabitants of the Korean peninsula? Why, too, did Japan, which has long enjoyed a favourable climate, drowse for 1,000 or 2,000 years, then suddenly, without any climatic stimulus, leap into action at the touch of western civilization? Surely in these cases other influences have been infinitely more effective than climate in accelerating or retarding the progress of mankind. And if climate has been a more or less negligible factor in so many different parts of the world, may we not question whether anywhere it has exerted a dominating or even powerful

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[1] One powerful factor in accelerating the rate of change in Europe during the last 100 years (to some extent also, perhaps, its character), is the extraordinary increase in the average expectation of life. In ancient Rome the average expectation of life (at birth) seems to have been under 30 years; in the England of 1800 it was under 40; whereas today in western Europe and in North America it ranges from 56 to over 60. Obviously the society in which a man may hope to perform useful and profitable work for 40 years instead of only 10 or 20, in which he is likely to be given twice the time to train and provide for his children, and in which, unless the resources of the country greatly increase, the number of children born to each family will probably be fewer, thus giving women as well as men far greater scope for outside activities—such a society must be vastly different from one in which the whole personnel changes, roughly speaking, three times in a century. Then again, during an average lifetime of 60 years man can accumulate far greater knowledge than during a lifetime of 30 or 35. He is given increased opportunities for experimentation, for making discoveries and inventions; he tends to marry later in life, and has greater freedom, during his earlier years, to follow his own inclinations and personal interests. Finally, there is a tendency for governments and societies to be guided by greybeards rather than by men at the height of their physical activities.

A further decrease in infant mortality and of the mortality of women in childbirth, and improvements in the treatment of certain major diseases such as cancer, diabetes, and tuberculosis, may possibly raise the average expectation of life in western Europe and in North America by 3 or 4 years, but hardly more. In countries like India and China, on the other hand, the average expectation of life at birth is as low as in ancient Rome, and a tremendous increase is both possible and probable.

influence, except in so far as it has conditioned the resources available for man's use, and prohibited, for example, the evolution of a high civilization on the lofty plateau of Tibet, or in the heart of the Kalahari desert?

INFLUENCE OF SUPERMEN AND OF MOMENTOUS DISCOVERIES

Far more potent, apparently, than climate, in the moulding of man's progress, have been the successive stimuli that have galvanized peoples into new activities and given a special élan, now to one or two nations, now to many. Such, for example, have been the stimuli administered by supermen who by their thoughts and actions have transformed the lives of millions—philosophers like Confucius and Karl Marx, religious reformers like Mohammed and Buddha, military geniuses like Alexander the Great and Genghis Khan, and administrators like Charlemagne and Peter the Great. Such, also, have been the stimuli of certain discoveries and inventions—in recent times the steam engine, electricity, and the internal combustion engine; in the middle ages firearms and the printing press; and in remoter times agriculture, the domestication of animals, and the metallurgy of iron.

The tremendous effect of these stimuli on human progress needs no elaboration; yet they carry us only a very short way towards the solution of our problem. We cannot use them for measuring the differences between the Old World and the New, because we cannot determine the frequency of their occurrence or the force they potentially exert. They are unpredictable and incalculable. We can neither occasion nor foresee their emergence; nor can we predict whether, if they do emerge, they will light upon fertile soil and bear fruit. Indeed, many a superman has lived and died obscure; many a notable discovery or invention has remained latent for centuries, and then become dynamic only through union with other discoveries, or through its introduction into another milieu.[1] Finally, they are not themselves the ultimate causes of progress, any more than the electric current transmitted to the spark-plugs of a car causes its forward motion. Just as the chambers of the engine must be filled with gasoline before there can be an explosion and movement, so the minds of people must be primed for every new discovery, must be receptive to every superman, before these can produce their effect. Clearly, therefore, the ultimate causes of progress lie deeply rooted in human psychology, and that is a realm we have not yet learned to explore.

CULTURE CONTACTS AND THEIR EFFECTS ON CIVILIZATION

Our search seems to have brought us up sharply against a blank wall. Nevertheless, even if we have failed to determine the ultimate causes of man's progress, we are now able to detect certain conditions without which

[1] Cf. the printing press and gunpowder, invented in China, but of little significance until they were introduced into Europe.

that progress would have been impossible. First and foremost among these conditions were the contacts and interactions of peoples and cultures, whenever they were divergent enough to provoke a stimulus, yet not so divergent that, like oil and water, they could not mix. Japan and China, Spain and Italy, have not greatly stimulated one another since the first millenium A.D., probably because their cultures were too strongly alike; but the enforced opening of Japan to the Occidental world set the stage for an amazing revolution in the islands' social, economic, and perhaps also religious life. We see similar revolutions unfolding before our eyes today in India and China, although the tempo is slower in those countries, partly, it would seem, because they present much larger areas with less unified and less homogeneous populations—and are, moreover, land masses with inadequate communications between one district and another—partly, also, one suspects, because of the less enterprising characters of the peoples themselves.

A clash of cultures often takes the form of armed warfare, and wars, even unsuccessful ones, may lead to progress, because they rouse a people to the highest pitch of energy. Despite all the misery they caused, the Crusades appear to have brought on the Renaissance in western Europe by opening the storehouse of Greek philosophy and history to nations keyed up to their reception. So, too, the energy Spain mustered to drive out the Moors carried her afterwards into the forefront of European civilization; and France's humiliation after the war of 1870 drove her to build up a great colonial empire in order to regain her place among the world's leaders. War is undoubtedly a powerful stimulant, deriving its strength from man's most deeply rooted instinct, the instinct of self-preservation; but it has always been a very dangerous stimulant, not infrequently fatal to a nation or tribe. During past ages it probably did benefit mankind in certain cases, though at a tremendous cost, because when communication was slow and travel difficult, it helped to spread knowledge from region to region. Today, however, its destructive powers have far outgrown its constructive, and it seems much more likely to annihilate civilization than to advance it. That cultures may clash and freely interact without recourse to warfare we can observe in many parts of the world, in Canada, for example, with its French and English populations, or, more strikingly perhaps, in Switzerland, where France, Germany, and Italy all meet in harmonious strife.

Two very dissimilar cultures coming together, e.g. that of Italy and of the Barbary coast during mediaeval times, may arouse no stimulus in either; each may continue along its own path, slightly enriched by elements borrowed from the other, but in essentials hardly altered. India and China thus pursued their separate paths for many centuries, despite the transfer of Buddhism from one country to the other. If, however, one culture commands far greater resources and offers a richer social life than the other, the weaker, unless it can isolate itself, displays little stability

and generally soon goes to the wall. This is what happened in North America east of the Great Lakes a few centuries before Cartier's arrival, when Iroquoian tribes, enjoying through their knowledge of agriculture a securer and richer life than the migratory Algonkians, seized southeastern Ontario and most of New York state and began to impose their culture on the surrounding tribes. It happened again throughout the whole western hemisphere after the intervention of Europeans; for the aborigines could contribute little to European civilization except a few economic plants (maize, potatoes, beans, tobacco, etc.), and their own cultures, too weak to withstand the impact, collapsed and disappeared without exerting any further stimulus on the invaders. Similarly in the South Seas the Maoris of New Zealand are imperceptibly merging with the British colonists, and the Polynesians in the other islands are slowly fading away, without contributing any discernible feature to the new civilization except a minute percentage of their blood.

We should remember in this connexion that conditions are vastly different today from what they were in earlier eras. Up to 300 or 400 years ago nations and peoples were far more diversified and self-contained, so that the interactions of cultures were analogous to single combats between rivals rather variously equipped. The cultural units, too, were much smaller, and, therefore, more easily stimulated and diverted along new paths. Recent inventions, particularly those of the last century, the telegraph and telephone, the radio and the airplane, have now shrunk the nations together; the resources of one country—its minerals, its vegetable products, and its manufactured goods—flow freely and swiftly to a hundred others; and new discoveries and inventions penetrate almost immediately into every corner of the globe. If we exclude from the picture backward peoples like the Polynesians, the Australian aborigines, and perhaps the negroes of Africa, who seem destined to play but an insignificant part in the world's drama, we see that the principal nations, so far as their material progress is concerned, march nearly side by side, and that such cultural differences as occur are mainly differences in ideas and in social organization, which we cannot so readily classify as retrograde or advanced. With the telegraph and the wireless ideas from Russia can permeate America within a few hours, and, though we have by no means annihilated space, every nation is now in daily contact with every other. Today, therefore, interactions of cultures are continuous, and no longer resemble single combats, but rather a confused mêlée in which the combatants are similarly armed, and the fall of one may have little effect on the general issue. They still play as vital a part in human progress as in earlier times, but they appear less conspicuous now because they operate unceasingly, and because their effects are more subtle and intangible, influencing the inner structure of society rather than its outer.

BACKWARDNESS OF INDIANS PARTLY DUE TO ISOLATION

To illustrate the many ways in which cultures have interacted in the past, and the effects they have produced, would require a new "Outline of History" containing not less than 1,000 pages. When we reflect, however, that in countries like England and the United States man originally possessed not a single domestic animal except the dog, not a single cereal, and none of our commonest fruits, but that these and many other necessities of our modern life he obtained through contact with foreign countries, we can accept without further question that cultural contacts have been one of the most potent forces in driving man upward from savagery to civilization, from the limited resources, narrow outlook, and simple routine of a tiny hunting or fishing community to the complex life of a mighty nation. From this it follows that the backwardness of our Indians may be largely attributed to their isolation in the western hemisphere, removed from all those contacts which, starting around the eastern Mediterranean, spurred so many peoples in the Old World along the upward path. Our aborigines of ten to twenty thousand years ago, when they began their career in the New World, were probably no farther behind than the rest of the earth's inhabitants. At that time, however, man did not dream of agriculture or of domesticated animals (except perhaps the dog); he depended for his maintenance, and for the maintenance of his family, solely on the wild game around him, and the fish in the seas, lakes, and rivers. In one or two specially favoured localities where fish and game were unusually abundant during most seasons of the year he may conceivably have established a more or less permanent home; but for the most part he was a wanderer, unable to accumulate more food than he could consume in a few days, or more wealth than he could carry on his back.

It was not until long after the first immigrants had reached America—not until about 5000 or 6000 B.C., apparently—that a few peoples in the heart of the Old World made a momentous stride forward. Instead of merely plucking the ripe ears of the wheat and barley that happened to grow wild in their districts they began to cultivate those grasses; and about the same time, or a little later, they domesticated several of the wild animals around them—horses, cattle, sheep, pigs, and goats. Then for the first time they were able to cease their wanderings, to gather their families into permanent communities, and, with an assured food supply, divide their labour and enjoy the stimulus and pleasures of city life. Other discoveries followed quickly: new cereals, pottery, weaving, architecture in brick and stone, metals, wheeled transport, and keeled ships. The invention of writing fixed and preserved every advance in knowledge; and wars, migrations, and trade, facilitated by improvements in travel and transportation, carried the discoveries east and west, and led to fresh discoveries and inventions elsewhere. Population increased with every increase in the

food supply, large nations arose, prosperity gave more leisure for science and art and literature, and the current of civilization, despite occasional stretches of still water, gained both volume and momentum. But because transport was still slow and communication difficult civilization was unable to carry its new products into every region of the Old World, and its torch-bearers moved farther and farther ahead of those peoples who were cut off by physical or other barriers from the main stream. So the northeastern corner of Asia remained virtually unaffected down to comparatively recent times, and since this region was America's only link with the Old World until Columbus bridged the Atlantic, our Indians pursued their own course undisturbed.

LATER DAWN OF CIVILIZATION IN AMERICA

Given a whole hemisphere to themselves, however, why did not our Indians press forward with similar vigour and evolve a comparable civilization of their own? They started from approximately the same baseline; whatever stimuli may come from diversity of environments, from the interactions of cultures, the contacts of tribe with tribe and nation with nation, whether in peace or in war, they could experience within the limits of their own hemisphere no less than the peoples of the Old World within theirs. Nearly all the minerals we use today abounded within their reach; and although wheat and barley, rye and oats, did not exist in the New World to provide a basis for agriculture, its inhabitants could and did substitute maize and cassava, potatoes, beans, and other native food plants.

In certain regions the aborigines did make substantial progress. Over wide areas in both North and South America the cultivation of maize dissipated all fear of famine, fostered the congregation of the Indians in cities, and gave them ample leisure for other pursuits than the acquisition of their daily food. Securely anchored to their maize fields, as the peoples of Mesopotamia and Egypt, Crete and Greece, anchored themselves to wheat and barley, the Mayas of Central America erected magnificent temples of dressed and sculptured stone, invented a system of writing, and evolved a calendar, based on the apparent movements of the sun, the moon, and the planet Venus, that surpassed in accuracy any calendar evolved until modern times. In Peru, likewise, the Indians erected noble palaces, built excellent roads through precipitous mountain passes, smelted the ores of copper and of tin and alloyed them to make bronze, domesticated the llama and the alpaca, and fabricated pots and textiles that for sheer beauty rank among the choicest treasures of our museums. In both these regions labour was diversified as with us; there were rulers and warriors, priests, artists and engineers, traders, artizans, and cultivators of the soil. Each region, too, sent out streams of influence north and south. Apparently there was nothing to prevent the Peruvians and the Central Americans,

at least, from attaining as high a level of culture as any people in the Old World, or of developing nations powerful enough to withstand every assault from the nations of Europe.

Yet they lagged far behind. They were ignorant of the wheel, so essential for engineering and for transport; they could construct no vessel more seaworthy than the raft or dugout canoe; they had no knowledge of iron, a metal on which the Old World, after learning to extract it from the earth more than 3,000 years ago, has built up all its modern civilization; their architecture employed neither the true arch nor the dome; and their domestic animals, the llama and the alpaca, could not render them the services that Old World peoples obtained from the horse and the cow. Until they could overcome these deficiencies, neither the Indians of Peru nor those in Central America could hope to attain equality with the nations of Europe; and far behind the inhabitants of these two regions lagged the rest of the aborigines, whose cultures, with few exceptions, fell to lower and lower levels in proportion to their remoteness and isolation from the middle of the hemisphere.

We remarked that the Old World learned to extract iron from its ores a little over 3,000 years ago. Now this interval of 3,000 years roughly measures in time the cultural interval that separated the Old World peoples from the New at the time of their first conflict. The empires in Southern Mexico and Peru that were overthrown by the Spaniards early in the sixteenth century seem fairly comparable with the Egyptian, Hittite, Assyrian, and Babylonian empires of about 1500 B.C. Seeing that agriculture, which marks the beginning of civilized life, originated in North Palestine, apparently, between 6000 and 5000 B.C., these Old World civilizations could then trace back their histories for from 3,500 to 4,500 years. The American civilizations that the Spaniards destroyed had also been developing nearly the same length of time, for the Indians must have domesticated maize before 1000, and perhaps even by 2000, B.C.[1] It is evident, therefore, that the rates of progress in the two hemispheres were much alike; but because civilization dawned in the eastern hemisphere 3,000 years earlier, and underwent no prolonged eclipse, the Old World was about 3,000 years ahead of the New World at the time Pizarro overthrew the Incas.

Why agriculture should have begun so much later in the New World we do not know, any more than we know why man should have fished and hunted, gathered nuts and fruits, for thousands and even hundreds of thousands of years before he learned to plant a few seeds in the ground, sprinkle them periodically with water, and patiently wait for the harvest. Perhaps it was mere chance; perhaps, also, the first varieties of maize were harder to raise than the first varieties of wheat and barley, the earliest

[1] Cf. Kidder, A. V.: "Speculations on New World Prehistory," in Essays in Anthropology presented to A. L. Kroeber, University of California Press, 1936.

grasses domesticated in the Old World. Probably we shall never discover the true reason. Yet we can hardly doubt it was the lag in agriculture that postponed the dawn of civilization in the New World, and allowed its competitor in the Old to forge so far ahead.

SIMILARITIES AND DIFFERENCES IN THE GROWTH AND SPREAD OF NEW AND OLD WORLD CIVILIZATIONS

The remarkable similarities in the growth of civilization in the New and Old Worlds (though, as far as we can see, neither received any impulse from the other) afford convincing proof, if proof were needed, of the common origin of the peoples in the two hemispheres and the essential sameness of their mentality. Naturally we possess much fuller knowledge of the development of Old World civilization, partly because there has been far more exploration of its ancient sites, and partly because we can interpret the Egyptian hieroglyphs and the Mesopotamian cuneiform scripts, whereas the Maya inscriptions still remain a sealed book. In both hemispheres one of the first results of the new-born agriculture was the emergence of cities, built of brick or stone according to the materials round about, and walled or unwalled as dictated by the necessities of defence. The chiefs of the ertswhile migratory tribes became the lords or rulers of these cities, and, when one city acquired the hegemony over its neighbours, its lord developed into a hereditary king who claimed divine favour or divine descent and exacted tribute from his underlords. The principal buildings were palaces and temples, the latter administered by a priesthood that not only performed the public prayers and sacrifices, but also, by astronomical observations, regulated the calendar. Systems of writing then appeared in both the Old World and the New, trade flourished, the science of engineering sprang up from the need of good roads, aqueducts, irrigation canals, and walled terraces, art and architecture burst into bloom, and mining and metallurgy sent up vigorous shoots. Finally the city states expanded into empires whose monarchs claimed absolute power within their dominions, and upheld their claim with armies of professional soldiers.

Yet alongside of these broad resemblances between the courses of Old and New World civilizations there were striking differences. Eurasia could offer no parallel to the bloody religion of pre-Spanish Mexico, and no country except modern Russia has attempted a state socialism as far-reaching as that of the Peruvian Incas. On the economic side the Old World was considerably richer, because it possessed a greater variety of food grasses, and of animals suitable for domestication. The only cereals indigenous to America were maize, which thrives in a warm climate and is readily killed by frost, and a species of wild rice that has never been cultivated because the drying of its seeds destroys their germinating power. The Old World nurtured a different variety of wild rice that happened to germinate from the dry seeds and was, therefore, more easily domesticated.

It flourished, with millet, in the humid tropics, while wheat, rye, barley, and oats became the staple crops throughout the temperate zones far into the regions of summer frosts. Thus man had cereals for every region except the very cold and the very dry, and agriculture, together with the civilization that went hand in hand with it, could spread much more widely in the Old than in the New World until the latter's isolation was broken down and new food plants introduced in the sixteenth century. Of animals suitable for domestication, again, the New World lacked the wild cattle, the horse, and the ass; and its wild sheep and wild goats, unlike those of the Old World, which frequented the highlands of Persia and Asia Minor close to Mesopotamia and the "Fertile Crescent," roamed only in the Rocky mountains far distant from the centres of civilization in the long isthmus region and in Peru.[1] The South American Indians did tame a small camel, the guanaco, and derive from it the llama and the alpaca; but these two animals were much inferior for food and transport to the Asiatic camel, and still more inferior to the cow and the horse. It is true that the bison roamed the North American prairies as it did the Eurasiatic steppes; but while it is a hardier animal than the auroch or wild ox, from which our domestic cattle were derived, it seems much more difficult to tame; at all events it has hitherto resisted every attempt at domestication both in the Old World and the New.

The effect of the swift-footed horse in spreading and changing cultures needs no illustration so long as Europe and Asia retain the memory of Genghis Khan. It broke down the barriers and shortened the distances between nation and nation, giving man a mobility that he never afterwards increased until he invented the steam and internal combustion engines. From the remarkable transformation it produced among the Indians of both North and South America after its introduction in the sixteenth century, we may estimate, to some extent, how greatly it would have changed the face of this hemisphere had it been present in pre-Columbian times. The Indians would certainly have domesticated it, seeing that, in South America, they domesticated the guanaco, and, in North America, the Sioux regulated the movements of the bison and checked them from crossing Missouri river. Once domesticated, it would surely have spread both north and south, as it did in historic times, would have radically changed the civilizations in Central America and Peru, and would have carried those civilizations, or others based on them, into the remoter parts of the hemisphere. If to the domestication of the horse had been added the invention of the wheel, a device unknown to the New World, the transformation would have been still more complete; for in the Old World wheeled vehicles, drawn at first by oxen and asses, and from the second millenium B.C. by horses, led to widespread movements for both trade and conquest. We can see the influence of such vehicles in the invasion of Mesopotamia by the Kassites early in the second millenium B.C., in the

[1] The sheep ranged as far south as Sonora, the goat only to Idaho.

clashing of Egyptians, Assyrians, and Hittites in Palestine and Syria, in the movement of Aryan-speaking peoples into northwest India, in the far-flung empire of Darius won and upheld by charioteers, and in countless events through succeeding centuries down to the waves of Mongol horsemen followed by covered wagons that inundated half of Asia and Europe during the middle ages, and the brigades of "prairie schooners" and Red River carts that opened up our North American plains.

Great as was the influence on land of the horse and the wheeled vehicle, it was equalled at sea by the keeled ship equipped with oars and square-sail, another invention of the Old World that was unknown in America. Where it originated we do not know, but, manned by enterprising Minoan traders during the fourth and third milleniums B.C., it linked up all the countries bordering the Mediterranean sea; and in the second and first milleniums it carried elements of Eastern Mediterranean culture round the Atlantic coast of Europe to the Baltic, through the Dardanelles to the Black sea, and through the Red sea and the Indian ocean to India and southeastern Asia. Its importance in Greek and Roman times, and later, every historian recognizes. Only because its deckless waist and rigid sail rendered it too perilous a craft for the open ocean did it fail to bridge the Atlantic and bring the Old World cultures to American doors.

Thus we see that in the New World two factors operated to delay the growth and spread of the indigenous civilizations; the first was inadequate transport, the second a deficiency in the economic resources. Clearly it was impossible for the Indians to increase their economic resources without joining up with the Old World and introducing its grains and domestic animals; but why they failed to improve their land transport, why they did not invent the wheel, is rather puzzling. It may have been pure chance; yet it is worth remarking that even the Old World seems not to have invented the wheel until it had domesticated the cow and the ass. Still more puzzling was the failure of the Indians to improve their water-craft. Keels are practicable, indeed, on plank-built vessels only, not on bark or dugout canoes,[1] and only the natives in the extreme south of South America, and perhaps a few in California, constructed vessels of sewn planks. Yet even the keelless dugout can defy the open ocean if equipped with a proper sail, and the Indians of Peru and Ecuador were familiar with sails from the beginning of the Christian era, if not earlier. It is true that these Indians built rafts instead of dugouts, owing to the absence of suitable trees along their arid coast; but their trading voyages carried them as far as Panama, if not beyond, and in well-wooded Central America and Mexico one would have expected fleets of sailing-boats comparable with those in which the Polynesians explored the vast Pacific. It seems very strange, therefore, that sails should not have been adopted in this central region until a few decades before Columbus, in whose day they

[1] The Haida Indians of British Columbia, in post-European times at least, "pinched" the bows and sterns of their big dugouts to produce embryonic keels. but naturally they could not extend this device along the bottoms.

vere still uncommon, apparently, although he did meet one canoe that was sailing between the west end of Cuba and Yucatan. If the Arawaks or Caribs, for example, had learned to use the sail as early as the Peruvians, they might have converted the Caribbean sea and the gulf of Mexico into a second Mediterranean, and disseminated Central American civilization far and wide along the Atlantic coast. As it was, trade and commerce by sea still awaited development by Europeans; and outside of Central America and the northwest coast of South America sails were entirely unknown except to the Eskimo around Bering sea, who frequently visited the shores of Siberia, and the Eskimo of Greenland, who undoubtedly acquired their use from the early Norsemen.

INFLUENCE OF PHYSIOGRAPHIC CONDITIONS IN THE OLD AND NEW WORLDS

There was still a third factor, the physiography of this hemisphere, which combined with the inadequate resources and inadequate transport to prevent the extension of civilization over as wide an area in America as in Eurasia. In Eurasia nearly all the mountains run east and west, forming an irregular but more or less continuous line from the Atlantic to southwestern China, and dividing the entire region into two zones, a warm or tropical zone in the south and a zone ranging from temperate to Arctic in the north. This long girdle of mountains, so impassable in many places, conditioned the main avenues of communication in early times; the countries in the northern zone were linked by the belt of grassland that extends from Hungary to Mongolia, whereas those in the southern zone were most readily accessible by sea. Civilizing influences from Egypt and Mesopotamia, therefore, travelled eastward and westward along two routes, a northern and a southern. In Europe one stream flowed by sea through the Mediterranean and up the Atlantic coast to the Baltic, where it met, shortly before 2000 B.C., the northern stream that had penetrated to the heart of the continent by way of the Danube. Similarly, in Asia, civilization spread southeastward by sea (or perhaps at first by land) to India, whence it passed into Indo-China proper; and it also spread northeastward by land over the Persian highlands into the Central Asiatic steppes, reaching China through the Dzungarian Gates in the third millenium B.C., or more probably, perhaps, toward the close of the fourth. Thereafter, although Asia and Europe pursued separate paths in the main, each maintained unbroken communication with the other, and each kept enriching itself with the other's products and ideas.

Conditions in America were very different. The axis of this hemisphere lay north and south across the parallels of latitude, and the mountains ran in the same direction, not through the middle of the two continents, but along their Pacific coasts. In North America a plateau of grassy steppe offering few impediments to travel extended from northern Alberta to Mexico, and sloped imperceptibly down into the fertile basin of the Mississippi, which only the low Appalachians divided from the Coastal

plain. South of the Canada-United States boundary, too, the western mountains were penetrable through many passes, and fertile valleys fringed 1,000 miles of the Pacific coast. Since half the continent lay within the temperate zone, and was so easily traversable from east to west and from north to south, it would seem to have been eminently favourable for the development of a high civilization. Two-thirds of South America, on the other hand, lay well within the tropics, and throughout the greater part of that continent travel and transportation were beset with extraordinary difficulties. Its most fertile portions, the interior savannahs and grasslands, were discontinuous, separated from one another by the impenetrable swamps and jungles in the basins of the Orinoco, the Amazon, and the La Plata; its coastal regions presented a succession of low-lying tropical jungles, barren deserts, and high plateaux dropping down in steep escarpments to the sea; and the lofty Andes with its stupendous gorges and canyons prohibited any but the most desultory contact between the Pacific coast and the rest of the continent. To North America it was joined only by the long, narrow isthmus of southern Mexico and Central America, a neck of broken highlands and steaming lowlands bounded on the south by country that was hardly less difficult. This, doubtless, was the route by which South America received its first inhabitants, and it remained an avenue of communication throughout the centuries, for the early Peruvians obtained their maize from Central America, and at a much later date repaid the debt by transmitting bronze. Since neither region, however, seems to have contributed very much else to the other, the isthmus bridge and its approaches were evidently too impassable for frequent use. If North or South America had possessed good sea-going craft they could have maintained regular contact by water, for even with flimsy canoes one South American tribe, a branch of the Arawak, succeeded in colonizing the West Indies and nearly gained a foothold in Florida; but free intercommunication by sea had to await the coming of Europeans. So throughout all their earlier histories the two continents, unlike Europe and Asia, worked out their destinies independently. The marvel is, not that most of the aborigines of South America remained in a state of savagery, but that the Indians of the Andean highlands and coast possessed enough enterprise and ability to develop a noble civilization in their isolated home, far removed from any stimulating impulses that could reach them from without.

Let us return to North America, today the most populous part of the New World, and the main home of its industry and commerce. Here, as we saw earlier, civilization began between 1000 and 2000 B.C. with the domestication of maize somewhere in the highlands of southern Mexico or Central America, where we still find one of its parent plants, *teosinte*, growing wild in out-of-the-way places. Not until long afterward, however, not until perhaps nearly the end of the first millenium B.C., did the Indians succeed in producing a variety that would flourish in the humid lowlands, and thereby permit the rise of the Mayan civilization, followed after 1200 A.D. by the Toltec and the Aztec. Maize probably passed into South

America, ultimately reaching Peru, before it spread into the Central American lowlands; but northward it proceeded much more slowly, being delayed, apparently, by the rugged interior of Mexico and by the arid plateau and coast-line on each side of the United States boundary. It reached the " Basket-Makers " of the Colorado plateau about the beginning of the Christian era, where it laid the foundation, 1,000 years later, for the well-known Pueblos or Cliff-dwellings of Arizona and New Mexico. About the beginning of the Christian era, too, or perhaps a little later, it appeared in the Mississippi basin and in Florida, though how it reached these areas we have not yet discovered—whether it was from the Colorado plateau (which seems improbable), from Mexico by sea, or else by land around the coast, or finally from the northern coast of South America by way of the Antilles.

Thus partly on account of the physiographic conditions, and partly owing to defective transport and other causes, there was a lag of 1,000 to 1,500 years between the discovery of agriculture and its establishment on the main body of the North American continent. Even then the cultivation of maize could not extend far north of the Colorado plateau owing to the prevalence of summer frosts; nor westward to the Pacific coast, because of the winter rains in that area and the heavy clay soils that defied the digging-stick.[1] But no sooner had it gained a foothold in the fertile south-east than it expanded rapidly northward, until within the space of 1,000 years it covered all the eastern half of the United States, from Kansas to the Atlantic and from Louisiana and Florida to Massachusetts and North Dakota. Climatic conditions forbade its expansion farther north or north-west until Europeans developed earlier-ripening varieties of maize, and introduced other cereals to supplement it; but within this area it produced a nascent civilization that only lacked time, perhaps, to attain the level of the civilization in southern Mexico, or the Incan civilization that held sway over the Peruvian highlands. As it was, when discovered by Europeans the United States Indians still lacked the metallurgical and engineering knowledge of the Indians to the south, were ignorant of writing, and in art and architecture, weaving and pottery-making had scarcely advanced beyond the most primitive stages.

RISE AND DECLINE OF NATIONS IN AMERICA

Brief as has been this sketch of New World civilization we cannot fail to observe that here, just as in the Old World, the torches of progress had many bearers, each of whom ran his race, and, wearied, passed on his torch to another hand. Darkness still shrouds the identity of the people who kindled the first torch by domesticating maize. The Mayas, who fanned that torch into a blaze and carried it far ahead, lost their vigour after two long spurts, one in Guatemala and Honduras, the other in Yucatan, and

[1] Cf. Sauer, Carl: " American Agricultural Origins," in Essays in Anthropology presented to A. L. Kroeber, University of California Press, 1936.

handed the flame to the Toltecs, who in turn delivered it over to the Aztecs. The pace seems to have slackened a little about the time that Cortes appeared; but this slackening may have been temporary only, as it was in Europe during the Dark Ages, and the Aztecs or their successors might have carried the torch even farther than the Mayas had they continued their course unchecked. In South America the Incas, like the Normans in England, were only a conquering minority who expanded a structure already begun by two predecessors, the peoples of "Nasca" and "Proto-Nasca" times. What happened in the Pueblo area is not quite clear, but there too round-headed invaders from the north seem to have overwhelmed the founders of the local civilization, the long-headed "Basket-Makers," and absorbed their culture, as the Hellenes absorbed the culture of the Mycenaeans, in order to evolve from it a greater culture of their own. Finally, the pearl-hunting, copper-using "Mound-builders," who contributed the remarkable earthworks and mounds scattered throughout the basin of the Mississippi, passed their zenith about the fourteenth century, leaving various tribes to struggle for their mantle until the white man suddenly intervened and altered the entire situation. Thus the tribes and nations of the New World waxed and waned alternately, just as Lucretius and other philosophers saw them wax and wane in the Old. Clearly civilization does not advance through the efforts of only one nation, or of the inhabitants of only one region on the earth's surface, but through the cumulative efforts of many nations and peoples in many different parts of our globe.

CONCLUSION

So many forces interact in human society to promote or retard its progress that in analysing any group of phenomena we are prone to follow the will-o'-the-wisps that flicker in our path and to stray from the more important cause or causes. Yet if the foregoing arguments have guided us aright, we have succeeded in uncovering three principal reasons for the backward condition of the American Indians at the time of their discovery. The first was their isolation in the Western Hemisphere, deprived of certain resources native only to the Old World, and deprived also of any share in the Old World's discoveries and inventions; the second was the inferior resources of America itself, above all its dearth of cereals and of animals suitable for domestication; and the third was the physiography of this hemisphere, which severed South America from North America, cut off the Pacific coast of each continent from the main body, and greatly limited the area within which it was possible to cultivate the only known cereal, maize. To these causes we must add, also, two circumstances that seem largely fortuitous. One was the failure of the Indians to invent more adequate transport on sea and on land; the other was the late emergence of their agriculture, which held them back from the path of civilization until the more fortunate inhabitants of the Old World had travelled 3,000 years ahead.

Part II

PREHISTORY OF THE CANADIAN INDIANS[1]

In the first part of this book we uncovered what seemed to be the principal causes for the backward condition of the Indians in this hemisphere, even of those who inhabited the bountiful lands of the United States. We saw that agriculture, which is the basis of all true civilization, because it alone provides food in sufficient abundance for man to congregate in large numbers and to diversify his labour, had extended throughout the centre and east of the United States, but had established itself in Canada only within southeastern Ontario and along the banks of the St. Lawrence river. Farther west it had ascended the Red river to the boundary of Manitoba, but had failed to gain a foothold on the Canadian prairies, or to cross the Rocky mountains to the Pacific coast, because the varieties of maize then cultivated required a longer ripening season than was normally obtainable on the prairies or on the western plateaux, and the eastern Indians, themselves new converts to agriculture, were disrupted by Europeans before they could develop other varieties that would mature more quickly. Consequently, when the French founded their first settlements in Acadia and on the lower St. Lawrence, the entire aboriginal population of Canada, with the exception of the inhabitants of southeastern Ontario, were mere hunters and " collectors," dependant for their livelihood on fishing and the chase, and on such wild roots and wild berries as they could gather in their wanderings.

DIVERSITY OF TRIBES AND LANGUAGES IN CANADA

Canada is so vast a country, its climate, fauna, and flora vary so greatly from one region to another, that its inhabitants, whatever their origin or race, must adjust their lives to very different conditions. Our Indians were not a homogeneous people even from the outset, but spoke several different languages, practised many diverse customs, and held many distinctive beliefs. Within each tribal group the individual bands were largely self-supporting and self-contained; their slender resources, and slow methods of travel, did not permit that free intercommunication which enables the modern settler, even in places like the Peace River district, to break through his isolation and to keep in close touch with the

[1]Published originally, except for the opening paragraph and the illustrations, in "Custom Is King", a volume of essays presented to Dr. R. R. Marett on the occasion of his seventieth birthday, edited by L. H. D. Buxton, Hutchinson's Scientific and Technical Publications, London, 1936. The author acknowledges the courtesy of Dr. Buxton, and of Hutchinson's, in granting permission to reprint.

rest of the country. In consequence there was a perpetual tendency for the individual bands to modify their speech and to develop new ways of living, until as the centuries flowed by many of them attained the status of separate tribes. Thus it came about that when Champlain hoisted his flag at Quebec and claimed the northern half of the continent for the French crown, nearly fifty tribes were roaming over what is now Canada, and their speech was broken up into eleven tongues as distinct from one another as Russian and English—not to mention the numerous dialects of those tongues. This diversity should not amaze us, for it was probably no greater than the diversity in Europe a few thousand years ago, before the Aryan-speaking peoples swept over that continent; and it can still be paralleled in out-of-the-way parts of the Old World, such as the Caucasus and New Guinea. It militated, of course, against any serious resistance to European penetration, but it also hindered to some extent the early penetration of the country, and even today gives rise to administrative problems that would not exist had Canada been inhabited by a single people.

DIFFICULTIES IN RECONSTRUCTING ABORIGINAL HISTORY

A voluminous literature has now grown up around these forty to fifty tribes, and it is easy to obtain descriptions of their ways of life, their customs, their languages, and their reactions to European colonization. Yet just as we cannot fully understand our own civilization without tracing its development through the centuries from stone age times down to the present day, so we can hardly set the lives of our Indians in their true setting until we have some inkling of their earlier history and movements. Here, however, we are confronted with the difficulty that writing was not known in this hemisphere outside of Central America and Mexico, whose scripts we are still unable to decipher, and that the traditions of our Indians are neither reliable, nor do they carry us back any appreciable distance through the mists of time. Archæology, too, cannot throw in this country as penetrating a searchlight as it has thrown on the prehistoric past of the Old World, or even of Central America and Peru, because our Indians never gathered into permanent cities, or erected houses and temples of brick or stone, but moved continually from one place to another and made their dwellings of the quickly perishable materials, wood, bark, and skin. Our only clues to their earlier history must come from excavations of their still traceable camp-sites, graves, and refuse-heaps, and from an analysis of their recent distribution, cultures, and anatomy, viewed in relation to the distribution, cultures, and anatomy of other tribes and peoples in America and Eurasia. Naturally theories erected on so uncertain a foundation must be accepted with many reservations; yet they are not without their value, because they give us the broad frame that throws our picture of the historical Indians into higher relief.

ANTIQUITY OF MAN IN AMERICA

Most students now agree that the American aborigines entered the New World from the Old, and that most, if not all of them, crossed from Siberia to Alaska over Bering strait; furthermore, that they came not in one wave, but in several, separated in time by many centuries; and that the earliest wave left Siberia relatively late in human history—only when the last great ice-sheets that once covered half the northern hemisphere were finally on the wane, and man and animals could expand into regions that for half a million years had been nothing but frozen wastes.[1] We are quite sure that man was present in America at least 10,000 years ago, because we have found his tools and weapons associated with the bones of such animals as the mastodon, the giant ground sloth, and several species of bison that have long since become extinct. Moreover, no shorter period seems adequate for the evolution of the multitudinous tribes and languages that divided up the two continents, and for the development of the Peruvian and Central American civilizations. We do not know, however, who the first inhabitants were, nor whether they have left behind them any recognizable descendants. Our historic Indians seem to bear strains of many races or peoples in their blood. In some regions a round-headed Mongoloid predominates, as on the British Columbia coast; elsewhere Mongoloid traits appear only as a thin veneer, and a negroid or Melanesian strain seems prominent; and in still other places the Indians show strong affinities with the white race, which may have spread across northern Asia during the retreat of the ice-sheets. Since northeastern Siberia, the gateway to this hemisphere, has been occupied by round-headed, part-Mongoloid peoples for several millenia, we may reasonably conjecture that our non-Mongoloid Indians were among the earliest to reach this hemisphere, but were largely replaced or swamped by later immigrants of a more Mongoloid strain. In two places, indeed, we seem to have clear traces of this process, in Arizona, and in southern British Columbia, where earlier, long-headed or narrow-headed populations with few if any Mongoloid traits were submerged by immigrant round-heads of definitely Mongoloid types.

EARLY ARRIVAL OF ALGONKIANS FROM ASIA

Prominent among the tribes least tinged with Mongoloid traits were the rather long-headed Algonkian-speaking Indians who occupied all of eastern Canada and the northeastern section of the United States. Their language, of course, extended over a much wider range; it covered nearly half the prairies, and even penetrated, perhaps, into California and British Columbia. This suggests that in ancient times their physical type, also, may have dominated an area much larger than it occupied during the

[1] Cf. The American Aborigines, Their Origin and Antiquity, edited by Diamond Jenness, University of Toronto Press, 1933.

historical period. Scattered over the lower half of South America, too, but unknown between the Gran Chaco and the United States, were numerous culture traits peculiarly characteristic of our eastern Indians, such as the wearing of leggings and moccasins, embroidery on leather and leather fringes, fire-making with flint and pyrites, sweat-houses, bark vessels, and bone harpoon-points; and we know that traits like these restricted to opposite ends of the hemisphere must be of great antiquity. Thus three features suggest that our eastern Algonkians have inhabited America since very remote times, their non-Mongoloid appearance, the wide diffusion of their language, and the antiquity of some of their culture traits. Although we cannot say that their forefathers were the first people to cross over Bering strait, we seem justified in believing that they were among the very early immigrants, arriving here, perhaps, even before the ice-sheets had fully passed away.

LATEST IMMIGRANTS FROM ASIA

What immigrants followed the Algonkians, and who were the last to enter America, remain veiled in obscurity. The Plains' tribes have certain physical features, notably an aquiline nose, that suggest they may have preceded the more Mongol-like Indians of northern Canada and the Pacific coast; but this is no more than a conjecture. At the present time, too, we cannot determine which of three groups enjoys the distinction of being the latest arrival on this continent, whether we should give the palm to the North Pacific Coast Indians, to the Eskimo, or to the widely spread Athapaskan tribes who occupy the basins of the Yukon and Mackenzie rivers, and the northern interior of British Columbia. Each group has its advocates. Those who claim a late Athapaskan invasion point to the geographical position of that people across the main highway into America; and they sometimes add that the Athapaskan language, because it is related to the Chinese-Siamese-Tibetan group of languages in eastern Asia, must have detached itself from that group at a comparatively recent date. We still lack, however, definite proof of this kinship in the languages; and even if it is confirmed, the Athapaskan tongue appears so sluggish and resistant to change that it may easily have preserved traces of its origin after an isolation of 3,000 or perhaps even 5,000 years. More weight attaches to the geographical argument, which certainly favours the late arrival of the Athapaskan-speaking peoples in America; but even this would not have prohibited the crossing of Bering strait by a still later contingent that could either have pushed overland through their midst, or have skirted by boat the shores of Bering sea, and, traversing the neck of the Aleutian peninsula (by the Iliamna Lake route), continued down to our northwest coast.

The North Pacific Coast Indians, for their part, can advance an equally strong claim, seeing that in their physical features, their folk-lore, and in

some of their customs they resemble so closely the "palæoasiatic" tribes of northeastern Siberia—Chukchee, Koryak, and others—that without doubt the two peoples once lived side by side. Some writers maintain that the "palæoasiatics" are actually Americans who have drifted back across Bering strait; others, with perhaps greater reason, believe that they stayed behind in northeastern Siberia when their kinsmen passed over to Alaska. Yet both schools of writers agree that, whether they lingered behind or turned back, they were cut off for ever from their kin by an invasion of Eskimo from the northeast; and the Eskimo, they assert, came originally from the hinterland behind Hudson bay, whence their ancestors, who previously had lived like the neighbouring Indians, moved out to the Arctic coast and then spread westward until they reached the shores around Bering strait.

Now it is quite true that the most recent investigations strongly support the descent of perhaps half the Eskimo from the Algonkian Indians of eastern Canada. They utterly fail to explain, however, the origin of the other half, which includes nearly all the Eskimo of Alaska; and it is in this western region, around the shores of Bering sea, that we have recently found the oldest known Eskimo remains. It seems quite possible, therefore, that this peculiar people developed, not in Canada as claimed above, but in Siberia, perhaps on its Arctic coast; and that they did not reach America before the second or first millennium B.C., when some of them lingered on both the Siberian and Alaskan coasts, while others penetrated into eastern Canada and merged their blood with the older Algonkians.

To follow out these arguments further would involve us in too great detail, and still leave us without any settled conclusion. After weighing all the evidence that is now available I incline to regard the Eskimo as the earliest of the three immigrant groups, and the Athapaskan as the latest. If this is correct the Pacific Coast Indians, and later the Athapaskans, pushed through or pushed aside the branch of the Eskimo that remained in Alaska, and after their passage the Eskimo reclosed the gateway at Bering strait. The theory, I admit, is a trifle complicated, but it seems to fit such facts as we know today better than any other hypothesis.

However uncertain we may be concerning the identity of the latest immigrants into America, recent excavations in Alaska have nevertheless thrown a glimmer of light on the date of that migration. At Wales, the Diomede islands, and especially St. Lawrence island, ruined villages show that the Eskimo have occupied at least parts of the Bering Sea area since the early centuries of the Christian era; and since their remains disclose no signs of disturbance by other invaders, we seem safe in assuming that there can have been no movement into America by way of Bering strait for the last two thousand years. Our Athapaskan tribes, therefore, and our Pacific Coast Indians, must have reached this continent before, and not after, the Christian era.

UNLIKELIHOOD OF A MIGRATION BY BOAT ACROSS THE PACIFIC

One may reasonably ask, however, whether our British Columbian Indians, and perhaps others also, may not have come to America by boat, not across the narrow Bering strait, where Siberia and Alaska almost touch, but across the North Pacific from Kamchatka to Aleutian peninsula, or even directly from Japan or China to the Pacific coast. Why should all our immigrants have travelled into the extreme northeast corner of Siberia when a thousand miles farther south a chain of islands, the Komandorski and Aleutian, were strung like stepping-stones between the two continents, and the Japanese current could carry their vessels to America's shores? The Polynesians scoured the South Pacific in dugout canoes; not so many years ago two white men sailed from Vancouver to Hawaii in an Indian dugout made on our own west coast; and within historic times fishing boats from Japan have repeatedly drifted across to the American side. One or two writers have uncovered certain traits among our Pacific Coast natives that resemble Chinese or Japanese traits; others have found numerous resemblances between the Chinese and the Indians of Central America, and would even derive the Mayan calendar and hieroglyphs from an ancient Chinese source. Is it not probable, then, that some of our Indians, starting from China or Japan deliberately or by chance, have crossed the north Pacific by boat in prehistoric times, and, finding the new continent to their liking, multiplied and prospered?

There are three cogent reasons why such a migration seems highly improbable. In the first place, excavations in the Aleutian islands have revealed no trace of any earlier people than the Aleuts discovered there by the first Russian explorers, and the Aleuts undoubtedly came from the mainland of America; nor have we found along the entire Pacific coast, in either North or South America, any remains that suggest an immigration by boat across the sea.[1] Then again, it is not generally realized that the Chinese did not use sails on their vessels until about the third century A.D., the Japanese not until the sixteenth; that a sailless craft blown off the shores of Japan would drift for six months before it reached Alaska or the British Columbia coast; and that open row-boats such as the Japanese used in their early trade with China did not carry enough food and water for so long a voyage.[2] Finally, it is hardly conceivable that the Chinese (or Japanese), who were highly civilized many centuries before Christ, could have colonized the coast of British Columbia within the last 3,000 years without introducing agriculture, pottery, and metals; or that they could have invaded Mexico in sufficient numbers to establish their calendrical system and

[1] This does not mean that the Polynesians never at any time *visited* the coast of South America. The presence in prehistoric Polynesia of the sweet potato, which botanists declare is a native of the New World, proves that on one occasion at least they succeeded in reaching its shores (Cf. Dixon, R. B.; "The Long Voyages of the Polynesians"; Proc. Am. Phil. Soc., vol. LXXIV, No. 3, 1923).

[2] Cf. Geog. Rev., Oct. 1932, p. 631 note; "Japan," edited by Brinkley, vol. 2, p. 34, vol. 4, p. 3. Brooks (Proc. Cal. Acad. Sc., vol. vi, p. 50) states that the Japanese current carries a junk towards America "at the rate of fully 10 miles a day."

hieroglyphic script without also introducing numerous words from their language, without bringing in a single Asiatic plant or animal, without substituting tools of hard bronze for the native tools of soft copper, and without spreading far and wide that simple yet invaluable contrivance, the wheel. More easily may we believe that such traits as link our British Columbia natives with the peoples of eastern Asia are a common heritage from ancient times brought to America across Bering strait, or else were introduced quite recently by the Chinese carpenters abandoned by Captain Meares at Nootka in 1788, or by their successors who have settled and intermarried with the Indians at numerous places along the Pacific coast.[1]

CAUSES OF MOVEMENTS WITHIN CANADA

We begin to tread on firmer ground when we reach the first millenium A.D., for during that period movements occurred all over Canada that had visible repercussions in historic times. Human society, savage as well as civilized, is never static; impulses both from within and without produce changes, now slow, now rapid, that remould its character and alter its entire composition and outlook. In tribes like our Indian, too, dependant solely on fishing and the chase, fluctuations in the supply of game modify the range and direction of man's own movements, and bring about new dispersals, new contacts, and new realinements. Conflicting desires for more prolific hunting and fishing grounds engender strife, followed by raids to avenge real or imaginary wrongs; and tribal boundaries disappear or change with the issue of these raids. Primitive peoples, again, have seldom lacked that spirit of curiosity and adventure which drives men to explore regions far distant and unknown. It was this, perhaps, that lured the first immigrants across Bering strait; thousands of years later, after Europeans had introduced horses that spread all over the plains, the same spirit of adventure led our Blackfoot Indians to extend their forays from the Canada-United States boundary almost to the gulf of Mexico; and throughout the Christian era it seems to have created a constant ebb and flow of movement from one end of North America to the other. On the other hand, virtually unknown in Canada were those wars in the name of religion, or for the extension of trade and empire, that have bred so much commotion and turmoil, and caused so many migrations, among the more civilized peoples of the Old World.

ESKIMO MOVEMENTS DURING THE CHRISTIAN ERA

During these early centuries of the Christian era the coast-line of northeastern Canada was depressed at least 40 to 50 feet below its present level, and the sea penetrated much farther inland in certain gulfs and bays. The channels that separate the islands of the Arctic archipelago were much

[1] For fuller discussions of this question see the papers by Nordenskiöld and Dixon in "The American Aborigines, Their Origin and Antiquity," edited by Diamond Jenness, University of Toronto Press, 1933.

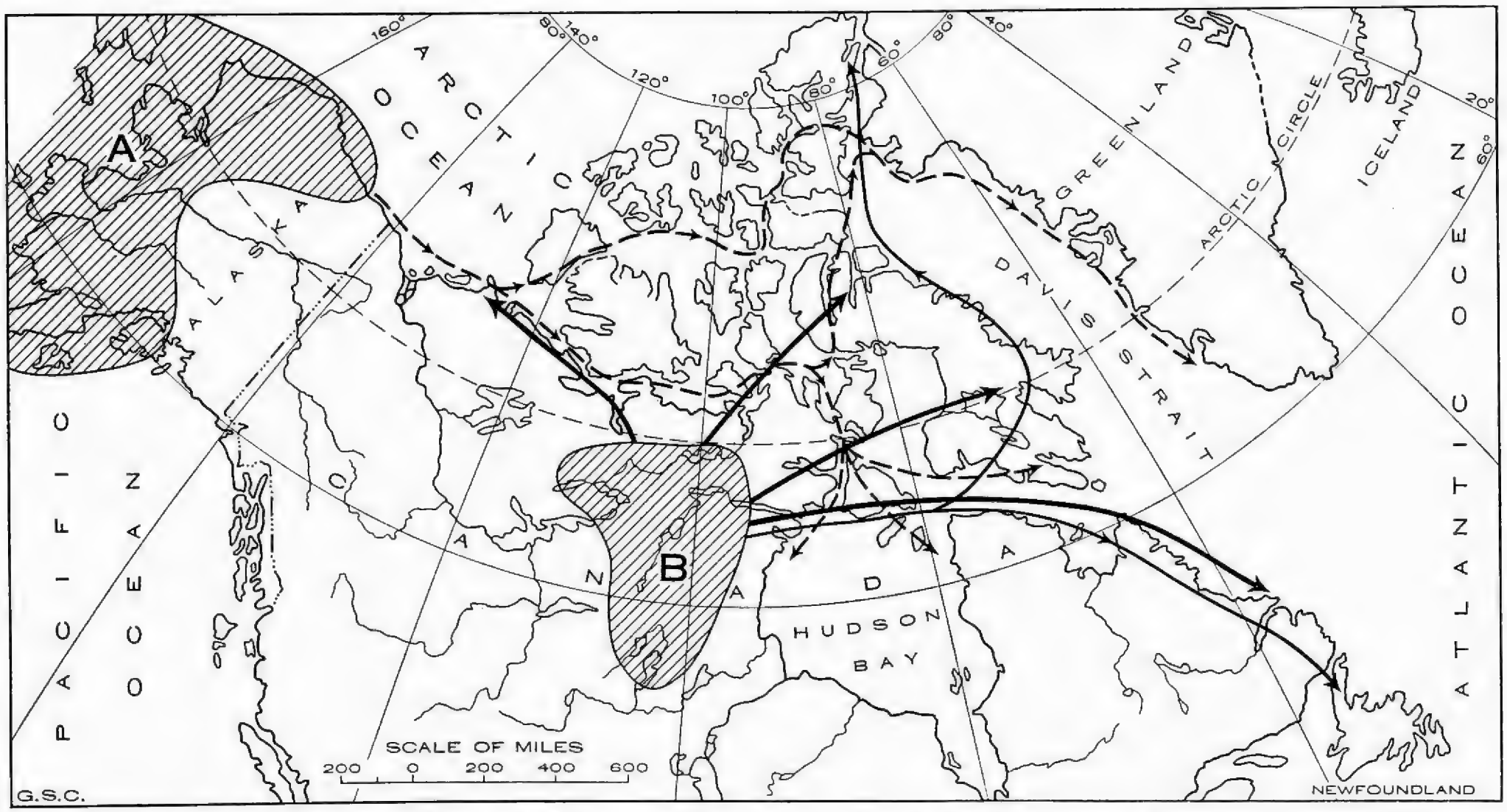

Figure 1. Movements of Eskimo during the Christian era. The area "A" shows western centre of dispersion; the area "B" shows eastern centre of dispersion; "Thule" Eskimo movements shown by light broken lines; "Dorset" Eskimo movements shown by light solid lines; modern Central Eskimo movements shown by heavy solid lines.

deeper than they are today, and not only seals, but whales and walruses, could penetrate into regions that later, when the land uprose, became too shallow for their passage or maintenance. Some time around 500 A.D., apparently, bands of Eskimo, spurred from Arctic Alaska by some unknown cause, began to spread eastward, dropping settlers all along their route. Some families hugged the mainland and continued to Hudson bay, others scattered over the islands to the northward and eventually reached Greenland. There, in the southwest corner of the island, Eric the Red and his Norsemen found their traces in 982 A.D.; and at Repulse bay, in the northwest corner of Hudson bay, the Danish archæologist Mathiassen recently excavated some ruined stone houses that were built about the same period.

Meanwhile other and more primitive Eskimo roaming the hinterland behind Hudson bay felt similar stirrings of unrest, and sent out colonies to the coasts of the eastern Arctic. A few families reached Ellesmere island and Greenland; others monopolized the coast and islands in Hudson strait; and still others, working down the coast of Labrador, or else traversing the heart of that peninsula, took possession of the north arm of Newfoundland. Whether this movement from the interior to the coast preceded or coincided with the eastward movement of the Alaskan Eskimo we do not know. We suspect that it started several centuries earlier, and that in places where the two peoples subsequently clashed, as in Baffin island, the western Eskimo had the mastery. We have reason to believe, also, that these western or "Thule" natives differed not only in culture but in physical type from the eastern Eskimo—both those who remained inland and those, the "Dorset" people, who settled on the coast—because the eastern natives seem to have acquired the features of the neighbouring Algonkian peoples with whom they jostled and intermarried through many centuries. Further than this we dare not speculate until archæologists have made a more thorough investigation of the Eskimo ruins in Hudson bay and straits.

Still holding our gaze on the Eskimo, but dropping down a few more centuries, we can detect, about 1200 A.D., a new impulse surging through the Arctic. Again the Indian-like Eskimo behind Hudson bay began to stream seaward, this time not to Hudson bay alone, but to the Arctic coast northward and westward beyond Coronation gulf, possibly even as far as Alaska.[1] Little by little these newcomers swamped the older coastal inhabitants, both the "Thule" people and their own kinsmen of the "Dorset" culture, until they held undisputed sway from Coronation gulf to Labrador. A few descendants of the "Thule" people managed to survive

[1] Their extension to Alaska would explain why the Seward Peninsula Eskimo in that region differ in type from their neighbours, and more nearly resemble the Eskimo of Coronation gulf (*See* Shapiro, H. L.: The Alaskan Eskimo, Anth. Papers, Am. Mus. Nat. Hist., vol. XXXI, pt. VI; Seltzer, Carl C.: The Anthropometry of the Western and Copper Eskimos, based on data of Vilhjalmur Stefansson, Human Biology, vol. 5, No. 3, September, 1933). There may be another explanation for this resemblance, however, since archæologically we have no evidence that they reached even as far as Mackenzie delta.

on Southampton island until the beginning of the twentieth century, but the "Dorset" Eskimo, or at least their culture, disappeared completely before the arrival of Europeans, even in Newfoundland. Meanwhile, the rising islands in the far north shuffled off the seal- and whale-hunting population they had gained so short a time before. The majority of these natives made their way to Greenland, where they may have assisted in overwhelming the settlements of the early Norsemen; others, perhaps, retreated to the mainland, only to be submerged by the tide of Eskimo from the interior. Some of the ruins scattered over the archipelago, however, seem to be less ancient than the rest. If they post-date the irruption of the inland Eskimo to the coast, they probably mark the tracks of fugitives who ultimately passed into Greenland, or, in the case of the westernmost islanders, to the Mackenzie delta and Alaska.

We are now in a position to understand why the present-day Eskimo of Canada fall naturally into three divisions. The natives in Mackenzie River delta (and, until 1902, the inhabitants of Southampton island also) descend from some of the old "Thule" people who migrated from their Alaskan home to the eastern Arctic 1,000 or more years ago, dropping colonies all along their route; on the Barren Grounds behind Hudson bay the primitive "Caribou" Eskimo, numbering in 1923 less than 500, represent the survivors of the second great reservoir of the race—the inland Eskimo, now shrunken to a fast vanishing pool; and occupying the whole coast-line from Coronation gulf to Labrador are the Eskimo who flowed out of this inland reservoir about 1200 A.D., overwhelmed the earlier coast-dwellers, and in their new environment gained a fresh lease of life and vigour.

MOVEMENTS OF ATHAPASKAN TRIBES DURING THE CHRISTIAN ERA

In outlining this theory of Eskimo movements since the Christian era we have been guided by three main considerations, their historical distribution and cultures, the variations they display in physical type, and, above all, the remains we have found in their ancient dwellings and camp-sites; for the prehistoric Eskimo built permanent homes of logs and sods, or of stones and whale-bones, that even after the lapse of many centuries have left visible marks on the treeless ground. When we turn to their neighbours, however, the Athapaskan Indians, archæology fails us completely, for their flimsy lodges of poles, lined with skins or brush or bark, rotted and disappeared without trace within a few years. Their culture, too, was simple and undistinguished, taking its colour from every neighbouring tribe; and their physical type underwent manifold changes through intermarriage with the peoples round about. Of one thing only were they unusually tenacious, their language; and it is the distribution of their language which gives us our principal clue to their past wanderings.

If we examine a map of the Indian languages in North America we are immediately struck by the vast area occupied by these Athapaskan-speaking tribes in Alaska and northern Canada, and by the number of their outposts farther south down to the borders of Mexico. In very few places did their territories impinge on the sea, for they were primarily land hunters who resorted to fishing in the lakes and rivers to eke out the fortunes of the chase. The Chipewyan and Dogrib Indians frequented the coast of Hudson bay around Churchill before 1689, when the youth Kelsey travelled north from York Factory in search of them, but it seems very unlikely that they took possession of this district, or wandered any distance over the Barren Grounds, long before the establishment of the fur trade. Another tribe, the Sarcee of Alberta, roamed over the open prairies, but did not move down from the Peace River area until about the seventeenth century. Elsewhere in Canada the Athapaskans invariably clung to the woodlands, or to the broken plateau country west of the Rocky mountains. In the United States they occupied a number of scattered districts along the Pacific slope, and two tribes, the Navaho and the Apache, scoured the deserts of southern Utah, southern Colorado, Arizona, and New Mexico, where they frequently raided the peaceful cliff-dwellers who cultivated the river valleys. The Spanish explorer Coronado encountered them in eastern Arizona as early as 1541, so that they evidently reached this desert region before the discovery of America; yet it cannot have been more than a century or two before, since otherwise they would have interfered with the growth and spread of the earlier agricultural population.

If now we contemplate these late movements of the Athapaskans, and the distribution of their tribes at the opening of the historical period, we seem justified in assuming that at the beginning of the first millennium A.D. they were still massed in the northwest corner of the continent, but had already begun their southward trek. One division occupied the basin of the Mackenzie river to the edge of the Barren Grounds, where the lack of timber halted them, and perhaps also the hostility of the inland Eskimo. It was partly the lack of timber, too, that checked their expansion onto the prairies, for even in later times the Sarcee clung to the forest border until they obtained horses from the Blackfoot. Most of the migrants, however, did not cross the Rockies, but drifted far down the western plateau, travelling, like the early Navaho, in small bands of two or three families that here and there, in favourable localities, concentrated to form new tribes. In different surroundings, and with different neighbours with whom they freely intermarried, these tribes developed new traits, adopted new ways of life, until at last there remained nothing to indicate their past history and wanderings except their speech. In this way it came about, apparently, that in physical appearance, in dress, and in customs, the Navaho in the southwest of the United States no longer bore the slightest

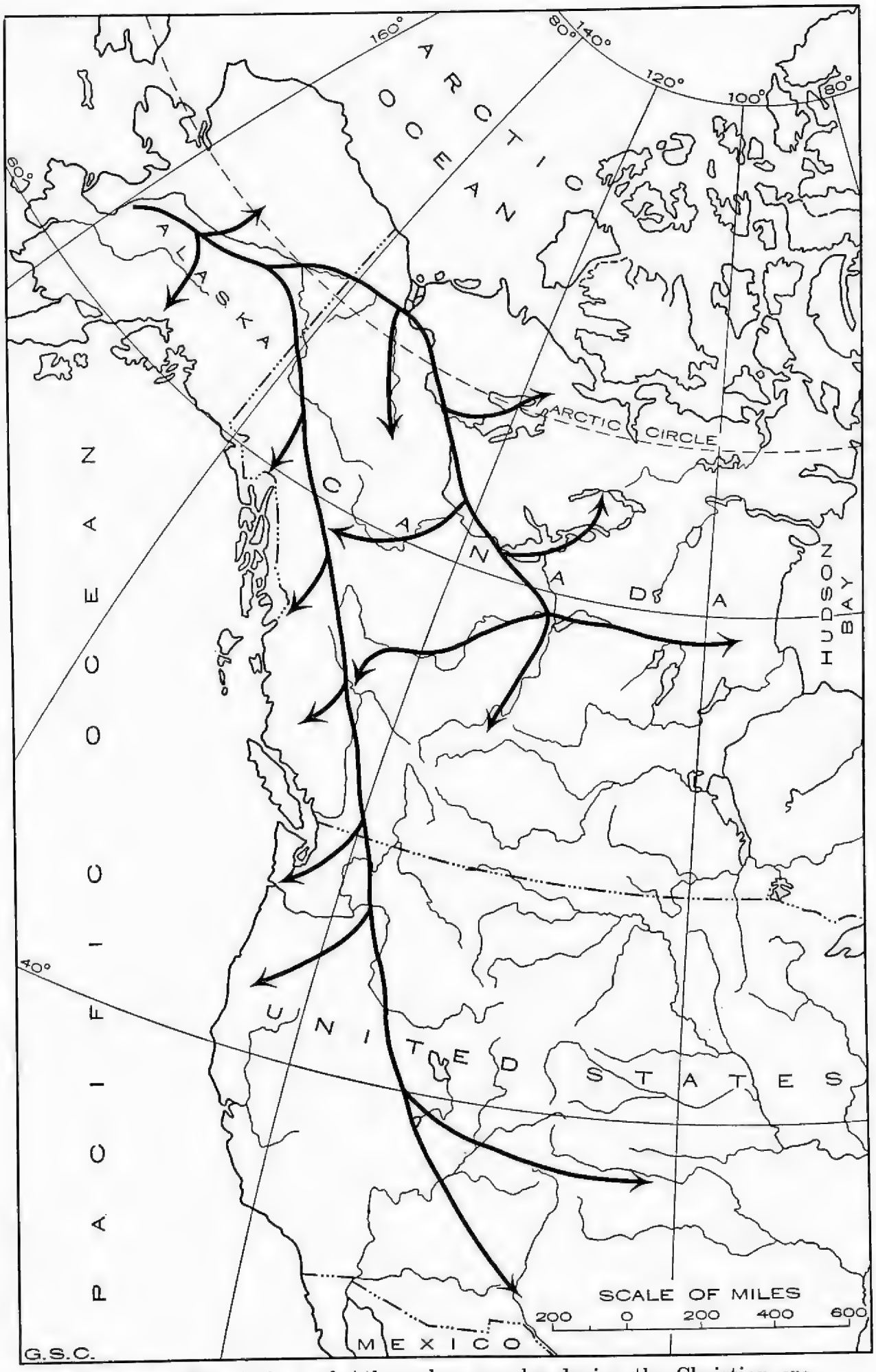

Figure 2. Wanderings of Athapaskan peoples during the Christian era.

resemblance to the Canadian Athapaskan tribes, even though their speech remained closely akin; and only the language of our Sarcee Indians differentiated them from the Algonkian-speaking Blackfoot with whom they joined their fortunes. The impulses that started the whole movement seem to have largely faded away before the arrival of Europeans, who witnessed only the closing stage, the slow absorption of the weaker and more isolated tribes by stronger neighbours. Thus in the eighteenth century the Salish-speaking Indians on Thompson river, in British Columbia, absorbed a small Athapaskan tribe that had occupied the Nicola valley; and a century later the Nass River Indians, farther north, enslaved the survivors of another tribe that had frequented the head of Portland canal.

THE PACIFIC COAST TRIBES DURING THE CHRISTIAN ERA

The history of the peoples along the Pacific coast of Canada is very obscure, because for several thousand years the region was both a corridor for migrant tribes, and also a cul-de-sac, until by the time Europeans arrived on the scene it sheltered an amazing variety of languages. We have seen that the more northern tribes (Tlinkit and Haida) were once in close contact with the Asiatic peoples of northeastern Siberia, but that this contact, whether it occurred in Asia or America, certainly preceded the Christian era. Later, these northern tribes sustained heavy pressure from the expanding Athapaskan horde, but their virile culture enabled them to absorb each shock without noticeable change; though they intermarried quite freely with the migrants, the Athapaskans who settled on the coast merely lost their identity and contributed little or nothing to the culture of the villagers with whom they merged. One philologist, it is true, claims that the Tlinkit tongue prevalent throughout the Alaskan "panhandle," and probably also the Haida spoken in Queen Charlotte islands, have the same origin as Athapaskan, although the three languages seem very different to superficial view; but others consider that the two coast tongues have simply borrowed certain elements from Athapaskan, as English has borrowed many words from Hebrew and Chinese. We cannot doubt that the present-day Tlinkit and Haida Indians, especially the former, have inherited a greater or lesser strain of Athapaskan blood; yet their physical type has remained so different that they must surely be a separate people or peoples, and not just Athapaskans transformed by long residence on the coast.

The Tsimshian Indians, who control the Nass and Skeena rivers, speak a tongue that seems to have no relatives in Canada or Alaska, but slightly resembles, it is said, the Penutian family of languages once spoken over nearly half the state of California. We have long suspected that the nucleus of the Tsimshian tribe originally dwelt inland; and if their language does prove to be Penutian, they must have wandered north from the United States, or else have lingered behind while their kinsmen pressed farther south. In either event they surely lived in the vicinity of their

present home[1] before the tide of Athapaskans, sweeping down the interior plateau, completely severed them from their Californian kin. It may have been the Athapaskans, indeed, who finally drove them to the coast; though in offering this suggestion we are merely piling one hypothesis on another.

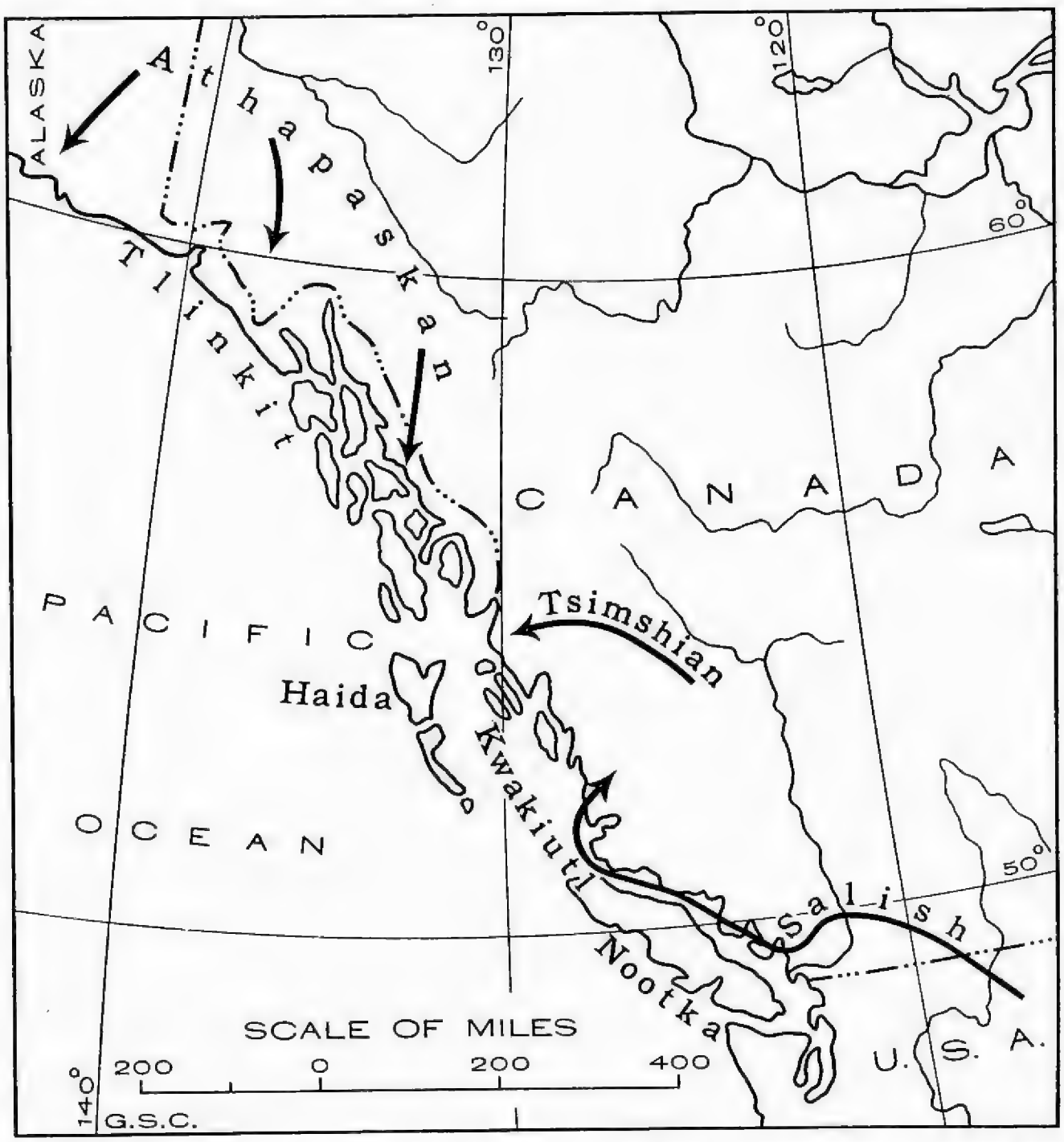

Figure 3. Movements on the Pacific coast during the Christian era. (Note: four tribes, namely the Tlinkit, Haida, Kwakiutl, and Nootka, seem to have reached their present homes before the Christian era.)

Occupying a long stretch of the British Columbia coast and most of Vancouver island are two tribes, the Nootka and the Kwakiutl, whose languages, though mutually unintelligible today, derive from the same parent tongue, and appear in no other region except Cape Flattery district

[1] Among other facts that suggest this is their sharing with some of the prehistoric people in the gulf of Alaska two such unusual traits as the practice of mummification and the use of stone mirrors.

in the neighbouring state of Washington. Their earlier history is shrouded in darkness; we can find no clue to any home they may have occupied outside this region since their forefathers entered the continent by way of Bering strait. Encroaching on their territory, and in one place nearly bisecting it, are tribes that speak the Salish language, which prevailed over a wide area inland on both sides of the Canada-United States boundary, and in Montana overstepped the Rockies. Certain cultural traits of these Salish people, notably their method of weaving wool and their cultivation of tobacco for smoking in tubular pipes, link them with peoples farther south; and the geographic distribution of their tribes, combined with the specimens unearthed from their old camp-sites, burial places, and refuse heaps, indicate that some of them moved from the plateau to the coast by way of Fraser river not less than 1,500 years ago, and probably more than 2,000. Around the mouth of the Fraser, and on the shores of Vancouver island opposite, they seem to have expelled, or amalgamated with, the older Nootka-Kwakiutl inhabitants, after which one branch, travelling, probably, by boat, occupied and became isolated in the basins of Bella Coola and Kimsquit rivers.

I have mentioned in an earlier passage that certain shell-heaps near the mouth of Fraser river have yielded skulls of two types, the one with narrower heads and few if any Mongoloid traits, the other round-headed and definitely Mongoloid. Since both types were present in the same heaps, and at the same levels, they must have been contemporary; but the narrow-headed type entirely disappeared before the nineteenth century. Now the brilliant philologist, Sapir, has suggested that the Nootka-Kwakiutl group of languages, and also the Salish, derive from the same ancestral tongue as the Algonkian; and we have already found reason to believe that the long-headed Algonkian peoples of eastern America came in with the earliest contingents from Asia, and wandered formerly over a much wider range. It is quite conceivable, therefore, that recognizable descendants of some of America's earliest inhabitants survived on our Pacific coast down to a few centuries ago, but were subsequently overwhelmed by a later people of another strain. In historic times the Indians up and down this coast were all round-headed, and varied physically only in minor ways, because centuries of intermarriage fostered by common festivals and a traffic in slaves had ironed out their earlier differences.

THE PLAINS AND EASTERN CANADA DURING THE FIRST MILLENNIUM A.D.

None of the peoples we have yet considered—the Eskimo, the Athapaskans, and the Pacific Coast Indians—possessed the slightest knowledge of agriculture, apart from the cultivation of a little tobacco in post-Christian times on the middle waters of the Fraser river. Neither were they acquainted with the pottery that generally accompanies the sedentary agricultural life, if we except the Alaskan Eskimo and their "Thule"

colonies to the eastward, who derived their knowledge from Siberia. When we turn to the Indians of the plains and of eastern Canada, however, we begin to experience light ground-swells from the tide of civilization that flowed from its home in Central America and southern Mexico into the south and southeast of the United States, and then passed northward up the Mississippi basin and along the coast of the Atlantic ocean.

Let us plot, more or less hypothetically, the distribution of our southern tribes between the Rockies and the Atlantic ocean in the first centuries of the Christian era. At that time the Kootenay Indians, whom the Blackfoot drove across the mountains into British Columbia during the eighteenth century, seem to have been living in Montana; the Athapaskan-speaking Sarcee, historic allies of the Blackfoot, had not yet separated from the Beaver Indians of the Mackenzie River basin; and the Dakota Sioux, the parents of our Assiniboine or Stonies, were roaming the prairies of the United States. Thus there remained on our plains, apparently, only the Blackfoot and the Gros Ventre, the latter a branch of the Arapaho who withdrew from southern Saskatchewan during the second half of the eighteenth century. Possibly some of the Salish-speaking Indians extended their wanderings into southern Alberta during the first millennium A.D.; but we have really no clues to any other inhabitants than the Blackfoot and the Gros Ventre just mentioned, both of whom spoke the Algonkian tongue.

East of the plains, also, we can detect, during this era, none but Algonkian tribes, except for the Eskimo who controlled the Labrador coast and northern Newfoundland. The Ojibwa Indians, then as now, though with different boundaries, seem to have lived within the woodland zone north of lake Huron, and both north and south of lake Superior; and the Cree doubtless occupied the same areas in northern Manitoba and northern Ontario that they occupy today. Ancient remains that are still imperfectly explored show Algonkian-speaking peoples even in southeastern Ontario, though we look in vain for their modern representatives. The majority, perhaps, were absorbed by the Huron and other Iroquoian tribes who pre-empted the region prior to the coming of Europeans; but it seems not unlikely that before the Iroquoian invasion some of them moved eastward to the Maritime Provinces and became the historic Micmac, because the Micmac tongue correlates with the dialects spoken in Michigan and Wisconsin more closely than with the dialects current along the Atlantic seaboard from New Jersey north. In these early centuries our Quebec Indians, the Montagnais-Naskapi group, centred farther to the west, for it was not until about the beginning of the historical period, according to their traditions, that they expanded into the north and east of Labrador peninsula, usurping areas that previously had lain within the Eskimo domain. In the Maritimes there dwelt, apparently, a long-headed people akin to those whose remains Parker unearthed a few years ago at Lamoka, in the state of New York; they also, we surmise, spoke an

Algonkian dialect, and a few of their descendants, mixed in blood with later invaders of the Maritimes, survived in Newfoundland as the Beothuk Indians until they were exterminated in the nineteenth century. Newfoundland itself was probably uninhabited during the early centuries of the Christian era, unless the Eskimo had already occupied its northern peninsula; for although certain stone implements found on the island suggest the presence of an Algonkian tribe before the historic Beothuk, no remains so far discovered seem referable to an antiquity greater than 1,000 years.

The closing centuries of the first millenium A.D. saw the flowering of the Mound-builder cultures in the Mississippi basin, cultures rooted in the cultivation of corn. We have seen that the Indian varieties of corn could not flourish on the Canadian prairies owing to early frosts, but it

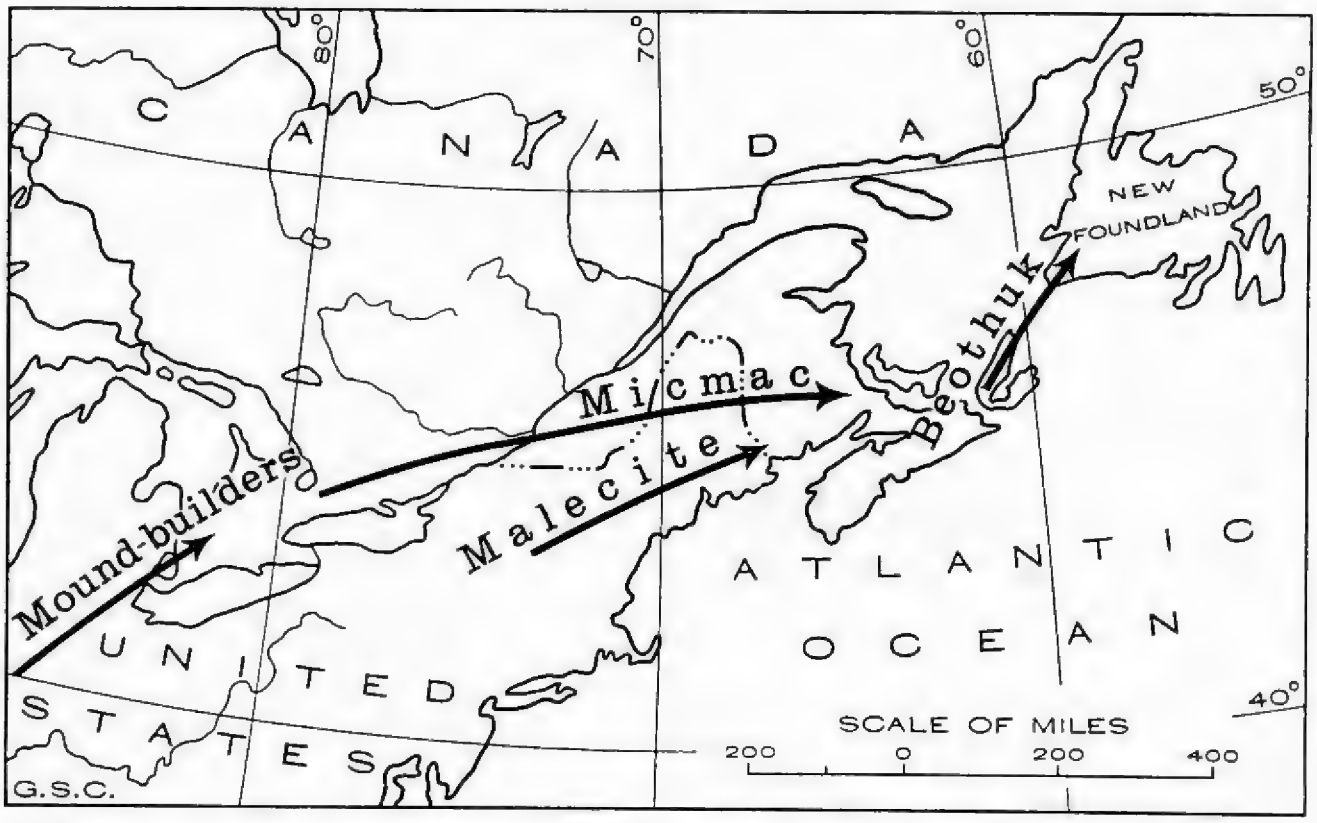

Figure 4. Movements in eastern Canada during the first millennium A.D.

was surely contact with the agricultural Mound-builders that taught the Ojibwa and other tribes to harvest and even sow the wild rice that grew around the Great Lakes; for in New Brunswick, where the rice also grew, the Indians neglected it entirely. Tobacco spread north where corn failed; either at this time or a little later the Blackfoot on our prairies learned to cultivate it, though its smoking continued to be a religious ceremony until European times. Northward, too, passed the knowledge of pottery, which the Blackfoot manufactured down to the second half of the eighteenth century, when the adoption of horse-transport impelled its replacement by cooking-vessels of skin. Pipes, pottery, and certain tools

and ornaments characteristic of the Mississippi basin, appeared about the end of the first millennium in southeastern Ontario, where the further presence of a few mounds suggests an immigration of an Algonkian people from the Ohio region rather than mere contact through war or trade. Roughly contemporary with this intrusion into Ontario was an immigration into the Maritime Provinces from the New England states, bringing in the pottery so common in the coastal shell-heaps. The latter immigrants we can surely identify with the Malecite Indians of New Brunswick and their kinsmen in Maine. They and the Micmac, who perhaps entered from the west about this time, seem to have absorbed all the older Maritime inhabitants except the Beothuk, who fled across Cabot strait into Newfoundland.[1]

THE PLAINS AND EASTERN CANADA DURING THE SECOND MILLENIUM A.D.

During the second millenium A.D., probably, though the exact period we do not know, the Kootenay Indians moved from Montana into southern Alberta and threatened to cut off the Blackfoot from the foothills of the Rockies. In the fifteenth or sixteenth century the Dakota Sioux, who were wandering somewhere around the upper Mississippi, threw off a branch—the Assiniboine—that settled first in Lake of the Woods region, then a century later moved northwest and joined the Cree. About this same time, too, the Sarcee Indians began to move down from the forests of the Athabaska River district and unite their fortunes with the Blackfoot. Thus three new tribes now took their places in the encircling of the plains. Nevertheless, until horses came up from the south and trading posts appeared on Hudson bay, there was little occasion for conflict, because the prairies were so vast, and the herds of buffalo and antelope so numerous, that the foot-wandering Blackfoot, Kootenay, and Gros Ventre seldom encountered one another, while the Sarcee, the Cree, and the Assiniboine preferred the shelter of the woodlands and only occasionally ventured out onto the open plains. York Factory (first established in 1670) attracted all these Indians except the remote Kootenay and Gros Ventre; and their rivalry for the common market quickly led to open warfare, in which the Cree and the Assiniboine alined themselves against the Blackfoot and the Sarcee. Then, early in the eighteenth century, horses began to trickle in from the United States, and before the middle of that century the mounted Blackfoot, armed probably with a few muskets, drove the Kootenay across the Rockies and were resisting the invasion of the plains by the Assiniboine, the Cree, and even the Ojibwa from Lake Superior

[1] Some years ago the discovery of a Beothuk grave on the north shore of the strait of Belle Isle, together with certain resemblances between Beothuk and Eskimo implements, led me to conjecture that this Indian tribe entered Newfoundland from the Labrador peninsula. That theory seems much less plausible today since we have learned that the Eskimo, and apparently they alone, occupied in prehistoric times all the northern peninsula of Newfoundland. The Beothuk grave in the strait of Belle Isle may have been 1,000 years old or only 200, as far as its contents revealed; but the more recent date seems probable in view of a tradition among the Montagnais Indians that a few Beothuk took refuge in Labrador during the eighteenth century.

region, all of whom now thirsted for the excitement of riding down the buffalo. Supporting the Blackfoot were the Sarcee, and at intervals up to 1800 the Gros Ventre, who then retreated into the United States and played no further part in the struggle. So, largely through European influences, though before any Europeans had actually settled west of Ontario, the once peaceful prairies became a bloody battling-ground, and did not regain their tranquillity until the buffalo herds were exterminated and the starving Indians confined to narrow reserves.

The second millenium A.D. saw also the invasion of eastern Canada by Iroquoian tribes, some of whom later played a prominent part in checking the expansion of the French colonists throughout North America. Starting from the Ohio valley about 1200 A.D., apparently, they advanced to the northeast in two waves, one of which crossed the Detroit river and followed the north shores of lakes Erie and Ontario, while the other followed the southern shores of the same lakes. The Canadian wave expelled or absorbed the Algonkian inhabitants of southeastern Ontario and usurped the country for itself; but a detachment from their forces moved farther east and occupied the north shore of the St. Lawrence down to Quebec or a little beyond. These " lower " Iroquois, during the summer months, monopolized all the fishing in the river, and even explored the north shore of the gulf of St. Lawrence beyond Natashkwan river. Like the rest of their people, however, they subordinated fishing and hunting to agriculture, deriving most of their food supply from the fields of corn, pumpkins, and beans that they planted around their villages. It was this dependence on agriculture that checked their further expansion in Canada, because their corn would not ripen north of the river valley, nor even along the river itself except in its upper reaches and in a few favoured localities near its mouth.

Although pipe-smoking prevailed in southeastern Ontario before the irruption of the Iroquoians, it may have been the latter who introduced the cultivation of tobacco into this region, for they grew it extensively both for themselves and to trade with the Algonkian tribes around lake Huron. Pipes were current even in the Maritime Provinces before the era of European colonization, but the tobacco that fed them came probably not from Canada, but from Iroquoian tribes in the state of New York. The Maritime Indians themselves grew neither tobacco nor corn before the historic period; but some Algonkians in the Ottawa River valley experimented with a few cornfields, although their harvests were too uncertain to lessen their dependence on the chase.

Even before their movement out of the Ohio valley the Iroquoians were not a united people, but were divided into numerous independent bands or tribes distinguished from one another by slight differences in dialect and in customs. Some of these differences increased, apparently, after they moved eastward, because in their new homes they encountered

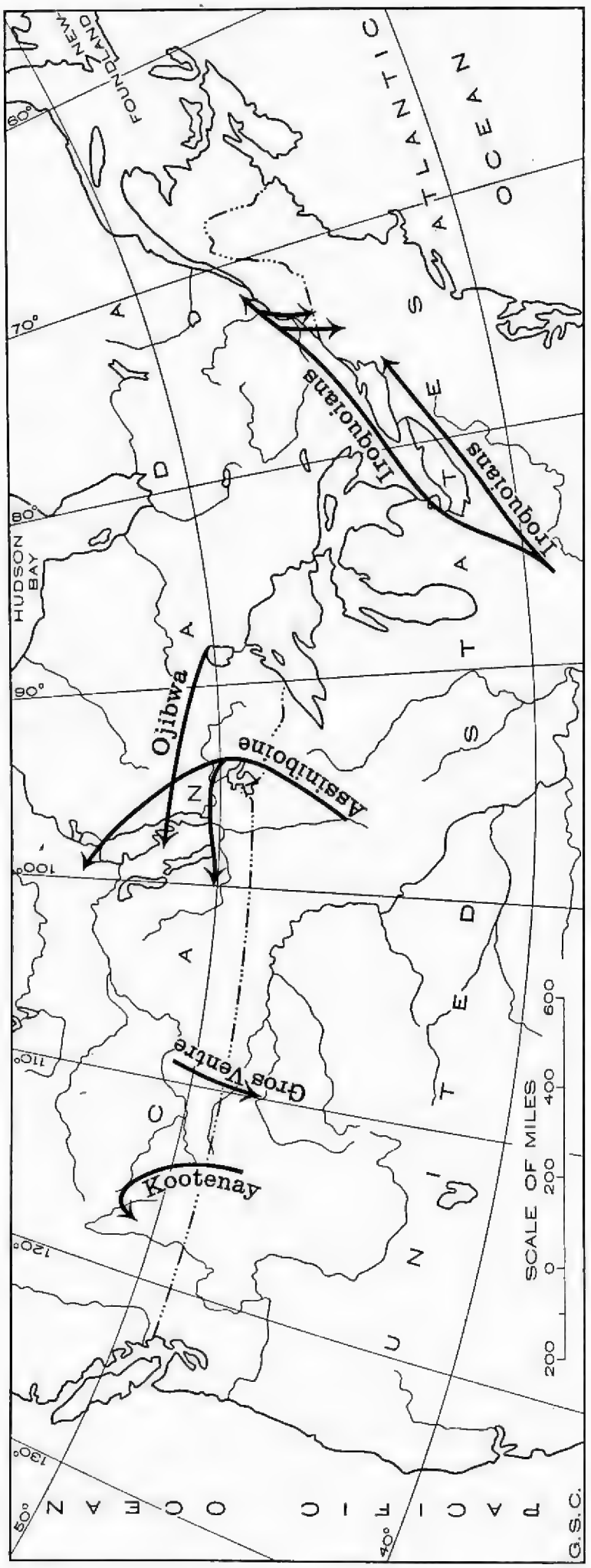

Figure 5. Movements on the plains and in eastern Canada during the second millennium A.D.

varying conditions, and adopted different attitudes toward their Algonkian neighbours. Those who had occupied southeastern Ontario were so friendly with the Algonkians that the latter settled among them in large numbers and were incorporated into their tribes; but the "lower" Iroquoians, despite some intermittent trade, maintained a definitely hostile attitude, and held their positions on the north shore of the St. Lawrence river only by force of their arms. When Cartier visited them in 1535 the majority were living in two villages, one, unfortified, at Stadacona, where the city of Quebec now stands, and the other, protected by a palisade, at Hochelaga, a site now covered by McGill University in Montreal. His description of these villages, and the vocabularies he collected, suggest that the two districts were inhabited by independent tribes, the Quebec area by the Indians known later as Mohawk, and the Montreal area by the Onondaga. However this may be, pressure from the Algonkians caused the disappearance of all the "lower" Iroquoians before the end of the sixteenth century, and in their place stood the newly formed League of the Iroquois or Five Nations, Mohawk, Oneida, Onondaga, Cayuga, and Seneca, occupying a wide strip of country from lake Champlain to the eastern corner of lake Erie, and presenting a united and hostile front both to the Algonkians north of the St. Lawrence, and to the allies of the Algonkians, their own kinsmen, in southeastern Ontario. The outcome of this conflict—how the League of the Iroquois, equipped with firearms by the Dutch in Pennsylvania, invaded southeastern Ontario and crushed successively the Huron, Tobacco, and Neutral nations—may be gleaned from any Canadian history.

In conclusion, we may perhaps remark that of all our Canadian Indians the Iroquoian peoples, and they alone, displayed any real talent for political organization. Their League of the Five Nations that so steadfastly opposed the expansion of the French may have owed its advanced constitution to European contact; but the fundamentally similar organizations of the Huron and Neutral nations abundantly prove that all the Iroquoians alike possessed an innate genius for subordinating village communities to tribal units, and for confederating tribes into nations governed by representative councils and guided by truly democratic ideals.